



S E R V I C E

# Traulsen R & A Series Refrigerators and Freezers

## Customer Maintenance Manual



SPECIFICATION SHEETS

OWNERS MANUALS

SERVICE MANUALS

TECHNICAL BULLETINS

PARTS LIST

HOBART SERVICE PARTS STORE

Project	Quantity	Item #
Model Specified		CSI Section 11400

## Shallow Depth Hinged Glass Door Reach-In Refrigerators/Self-Contained



Model Shown One Section  
(shown with optional casters)



### One & Two Section Models, 26" Deep

1-Section Full Length Door Model	RHT126WUT-FHG
2-Section Full Length Door Model	RHT226WUT-FHG
1-Section Half Length Door Model	RHT126WUT-HHG
2-Section Half Length Door Model	RHT226WUT-HHG

1-Section Full Length Door Model	AHT126WUT-FHG
2-Section Full Length Door Model	AHT226WUT-FHG
1-Section Half Length Door Model	AHT126WUT-HHG
2-Section Half Length Door Model	AHT226WUT-HHG

These 26" Deep reach-in refrigerator models are equipped with hinged glass doors in order to maximize product visibility. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full or Half Length Hinged Glass Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Stainless Steel Vertical Door Handle(s)
- Standard Door Hinging: 126W = Right, 226W = Left/Right, (other hinging available)
- LED Lights With Exterior Switch
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- Additional Wire Shelves
- Stainless Steel Shelves
- Export 220/50/1 Voltage
- 208/115/60/1 Voltage In Lieu Of Standard 115/60/1
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" High Casters In Lieu of Legs
- Set of Four (4) 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Remote Applications (see spec sheet TR35837 for details)



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides and louver assembly are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior is constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°. An external switch is provided to activate the interior LED lighting.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

The cabinet is insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AHT126WUT	R/AHT226WUT
Net capacity cu. ft.	19.1 (541 cu l)	40.8 (1156 cu l)
Length - overall in.	29 <sup>7</sup> / <sub>8</sub> (75.9 cm)	58 (147.3 cm)
Depth - overall in.	29 (73.6 cm)	29 (73.6 cm)
Depth - over body in.	26 (66.0 cm)	26 (66.0 cm)
Depth - door open 90° in.	57 <sup>1</sup> / <sub>16</sub> (146.5 cm)	57 <sup>1</sup> / <sub>16</sub> (146.5 cm)
Clear door width in.	21 <sup>1</sup> / <sub>2</sub> (54.6 cm)	21 <sup>1</sup> / <sub>2</sub> (54.6 cm)
Clear half-door height in.	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)
Clear full-door height in.	57 <sup>7</sup> / <sub>8</sub> (146.3 cm)	57 <sup>7</sup> / <sub>8</sub> (146.3 cm)
Height - overall on 6" legs <sup>5</sup>	83 <sup>1</sup> / <sub>4</sub> (211.5 cm)	83 <sup>1</sup> / <sub>4</sub> (211.5 cm)
No. Standard Shelves	3	6
Shelf area sq. ft. <sup>1</sup>	14.6 (1.35 sq m)	29.2 (2.71 sq m)
RHT Net Wt. lbs.	345 (156 kg)	550 (249 kg)
AHT Net Wt. lbs.	305 (138 kg)	480 (218 kg)
ELECTRICAL DATA		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes <sup>2</sup>	8.0	10.3
REFRIGERATION DATA		
Refrigerant	R-450A	R-450A
Refrigerant Charge Amount	14	24
BTU/HR H.P. <sup>3</sup>	2220 (½ HP)	4200 (½ HP)

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a fin ess StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, plenum effect blower coil, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

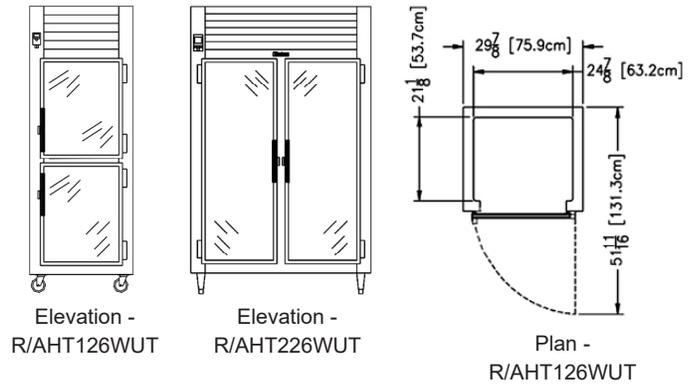
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Interior arrangements are installed at the factory.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



### NOTES

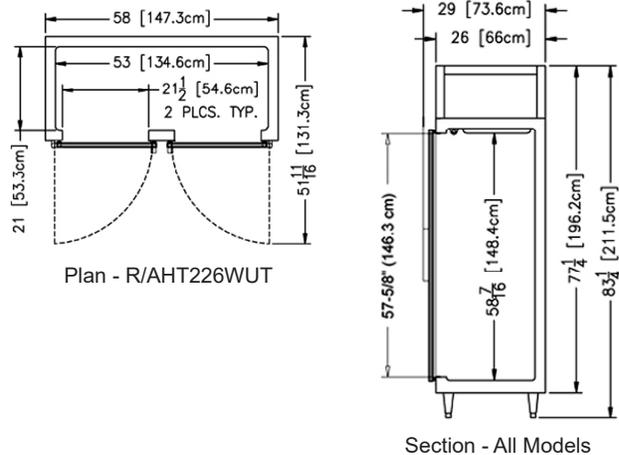
NOTE: Figures in parentheses reflect metric equivalents

- 1= Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.
- 2= Amp figure shown as supplied with standard LED lighting
- 3= Based on a 90°F ambient and 20°F evaporator.
- 4= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to spec sheet TR35837.
- 5= 12" Top clearance preferred for optimum performance and service access.

 **1 Section Models Equipped With One NEMA 5-15P Plug**

 **2 Section Models Equipped With One NEMA 5-20P Plug**

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.



NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35830 (REV. 01-21-19)

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**Traulsen**

Project	Quantity	Item #
Model Specified		CSI Section 11400

## 26" Deep Pass-Thru Refrigerator Models/ Self-Contained



Model Shown One Section  
(shown with optional casters)



Stainless Exterior  
& Interior



Stainless Exterior,  
Anodized Alumi-  
num Interior

### One & Two Section Models, 26" Deep

1-Section Full Length Door Model	RHT126WPUT-FHS
2-Section Full Length Door Model	RHT226WPUT-FHS
1-Section Half Length Door Model	RHT126WPUT-HHS
2-Section Half Length Door Model	RHT226WPUT-HHS

1-Section Full Length Door Model	AHT126WPUT-FHS
2-Section Full Length Door Model	AHT226WPUT-FHS
1-Section Half Length Door Model	AHT126WPUT-HHS
2-Section Half Length Door Model	AHT226WPUT-HHS

The 26" deep pass-thru refrigerator models are all designed to offer maximum interior storage capacity within a slightly shallower footprint. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging F & R: 126WP = Right, 226WP = Left/Right (other hings available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Re-Hinging Feature For Door(s)
- Additional Wire Shelves
- EZ-Open Foot Pedal (full height doors only)
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- Stainless Steel Shelves
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" High Casters In Lieu of Legs
- Set of Four (4) 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Prison/Correctional Facilities Options
- Remote Applications (see form TR35837 for more details)<sup>3</sup>
- Remote For Use With 20°F Glycol System
- Clear Glass Door(s) In Place Of One Or More Solid Door(s)



Listed by Underwriters Laboratories Inc.,  
to U.S. and Canadian safety standards and  
Listed by NSF International.



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AHT126WPUT	R/AHT226WPUT
Net capacity cu. ft.	20.4 (578 cu l)	43.5 (1234 cu l)
Length - overall in.	29 <sup>7</sup> / <sub>8</sub> (75.9 cm)	58 (147.3 cm)
Depth - overall in.	31 <sup>15</sup> / <sub>16</sub> (81.2 cm)	31 <sup>15</sup> / <sub>16</sub> (81.2 cm)
Depth - over body in.	26 (66.0 cm)	26 (66.0 cm)
Depth - doors open 90° in.	77 <sup>3</sup> / <sub>8</sub> (196.5 cm)	77 <sup>3</sup> / <sub>8</sub> (196.5 cm)
Clear door width in.	21 <sup>1</sup> / <sub>2</sub> (54.6 cm)	21 <sup>1</sup> / <sub>2</sub> (54.6 cm)
Clear half-door height in.	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)
Clear full-door height in.	57 <sup>5</sup> / <sub>8</sub> (146.3 cm)	57 <sup>5</sup> / <sub>8</sub> (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)
RHT Net Wt. lbs.	370 (168 kg)	600 (272 kg)
AHT Net Wt. lbs.	330 (150 kg)	530 (240 kg)
No. Standard Shelves	3	6
Shelf area sq. ft. <sup>1</sup>	14.6 (1.35 sq m)	29.2 (2.71 sq m)
ELECTRICAL DATA		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes	8.3	9.2
REFRIGERATION DATA		
Refrigerant	R-450A	R-450A
Refrigerant Charge Amount	14 oz	27 oz
BTU/HR H.P. <sup>2</sup>	2220 (1/5 HP)	2220 (1/5 HP)

### NOTES

NOTE: Figures in parentheses reflect metric equivalents

- 1= Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.
- 2= Based on a 90°F ambient and 20°F evaporator.
- 3= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to form TR35837.
- 4= 12" Top clearance preferred for optimum performance and service access.



### Equipped With One NEMA 5-15 P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

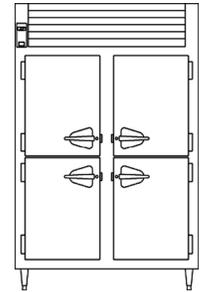
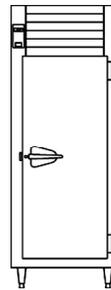
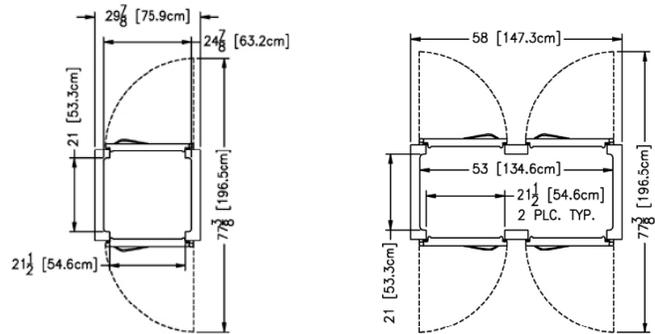
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

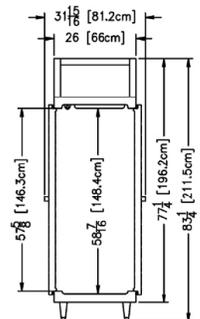
Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Interior arrangements are completely installed at the factory.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Section - All Models



NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35761 (REV. 01-21-19)

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## 26" Deep Reach-In Freezer Models/ Self-Contained



Model Shown One Section  
(shown with optional casters)



Stainless Exterior  
& Interior



Stainless Exterior,  
Anodized Alumi-  
num Interior

### One & Two Section Models, 26" Deep

1-Section Full Length Door Model	RLT126WUT-FHS
2-Section Full Length Door Model	RLT226WUT-FHS
1-Section Half Length Door Model	RLT126WUT-HHS
2-Section Half Length Door Model	RLT226WUT-HHS

1-Section Full Length Door Model	ALT126WUT-FHS
2-Section Full Length Door Model	ALT226WUT-FHS
1-Section Half Length Door Model	ALT126WUT-HHS
2-Section Half Length Door Model	ALT226WUT-HHS

The 26" deep reach-in freezer models are all designed to offer maximum interior storage capacity within a slightly shallower footprint. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-448A
- Rear Biased Return Air Duct (2 section models only)
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120 Degrees
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging: 126W = Right, 226W = Left/Right (other hinging available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Raised Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- Additional Wire Shelves
- EZ-Open Foot Pedal (full height doors only)
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- Stainless Steel Shelves
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" High Casters In Lieu of Legs
- Set of Four (4) 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Prison/Correctional Facilities Options
- Remote Applications (see spec sheet TR35837 for details)
- Water Cooled Self-Contained Condenser Suitable for Connection To Glycol



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 22 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120 degrees. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ALT126WUT	R/ALT226WUT
Net capacity cu. ft.	19.1 (541 cu l)	40.8 (1156 cu l)
Length - overall in.	29 <sup>7</sup> / <sub>8</sub> (75.9 cm)	58 (147.3 cm)
Depth - overall in.	29 (73.6 cm)	29 (73.6 cm)
Depth - less handle in.	27 <sup>3</sup> / <sub>4</sub> (69.4 cm)	27 <sup>3</sup> / <sub>4</sub> (69.4 cm)
Depth - over body in.	26 (66.0 cm)	26 (66.0 cm)
Depth - door open 90° in.	51 <sup>11</sup> / <sub>16</sub> (131.3 cm)	51 <sup>11</sup> / <sub>16</sub> (131.3 cm)
Clear door width in.	21 <sup>1</sup> / <sub>2</sub> (54.6 cm)	21 <sup>1</sup> / <sub>2</sub> (54.6 cm)
Clear half-door height in.	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)
Clear full-door height in.	57 <sup>5</sup> / <sub>8</sub> (146.3 cm)	57 <sup>5</sup> / <sub>8</sub> (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)
RLT Net Wt. lbs. <sup>3</sup>	375 (170 kg)	655 (297 kg)
ALT Net Wt. lbs. <sup>3</sup>	335 (152 kg)	585 (265 kg)
No. Standard Shelves	3	6
Shelf area sq. ft. <sup>1</sup>	14.6 (1.35 sq m)	29.2 (2.71 sq m)
ELECTRICAL DATA		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes	11.5	14.9
REFRIGERATION DATA		
Refrigerant	R-448A	R-448A
Refrigerant Charge oz.	12 (340.2 g)	25 (708.7 g)
BTU/HR H.P. <sup>2</sup>	1890 (½ HP)	3070 (¾ HP)

### NOTES

- NOTE: Figures in parentheses reflect metric equivalents
- Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.
  - Based on a 90°F ambient and -20°F evaporator.
  - For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to form TR35837.
  - 12" Top clearance preferred for optimum performance and service access.

 **1 Section Models Equipped With One NEMA 5-15P Plug**

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

 **2 Section Models Equipped With One NEMA 5-20P Plug**

NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35764 (REV. 07-08-19)

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-448A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Rear biased return air duct (2 section models only) protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 0 to -5°F.

### Controller

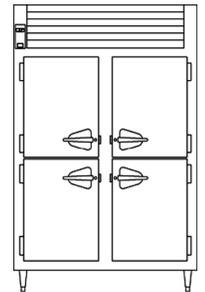
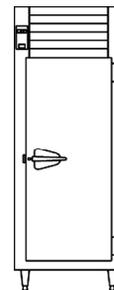
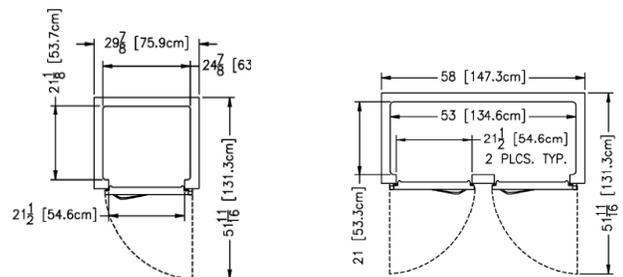
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

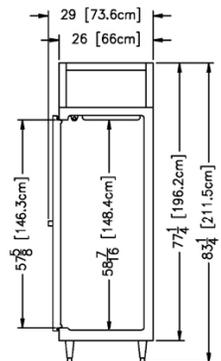
Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Interior arrangements are installed at the factory.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Section - All Models



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**Traulsen**

Project	Quantity	Item #
Model Specified		CSI Section 11400

## 26" Deep Reach-In Refrigerator Models/ Self-Contained



Model Shown One Section  
(shown with optional casters)



### One & Two Section Models, 26" Deep

1-Section Full Length Door Model	RHT126WUT-FHS
2-Section Full Length Door Model	RHT226WUT-FHS
1-Section Half Length Door Model	RHT126WUT-HHS
2-Section Half Length Door Model	RHT226WUT-HHS



1-Section Full Length Door Model	AHT126WUT-FHS
2-Section Full Length Door Model	AHT226WUT-FHS
1-Section Half Length Door Model	AHT126WUT-HHS
2-Section Half Length Door Model	AHT226WUT-HHS

The 26" deep reach-in refrigerator models are all designed to offer maximum interior storage capacity within a slightly shallower footprint. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control with LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging: 126W = Right, 226W = Left/Right (other hinging available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- Additional Wire Shelves
- EZ-Open Foot Pedal (full height doors only)
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- Stainless Steel Shelves
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" High Casters In Lieu of Legs
- Set of Four (4) 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Prison/Correctional Facilities Options
- Remote Applications (see form TR35837 for more details)<sup>3</sup>
- Remote For Use With 20°F Glycol System
- Wine Holding Applications (operates at 53-57°F and includes 8 wine bottle shelves per section)
- Clear Glass Door(s) In Place Of One Or More Solid Door(s)



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AHT126WUT	R/AHT226WUT
Net capacity cu. ft.	19.1 (541 cu l)	40.8 (1156 cu l)
Length - overall in.	29 <sup>7</sup> / <sub>8</sub> (75.9 cm)	58 (147.3 cm)
Depth - overall in.	29 (73.6 cm)	29 (73.6 cm)
Depth - less handle in.	27 <sup>3</sup> / <sub>4</sub> (69.4 cm)	27 <sup>3</sup> / <sub>4</sub> (69.4 cm)
Depth - over body in.	26 (66.0 cm)	26 (66.0 cm)
Depth - door open 90° in.	51 <sup>11</sup> / <sub>16</sub> (131.3 cm)	51 <sup>11</sup> / <sub>16</sub> (131.3 cm)
Clear door width in.	21 <sup>1</sup> / <sub>2</sub> (54.6 cm)	21 <sup>1</sup> / <sub>2</sub> (54.6 cm)
Clear half-door height in.	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)
Clear full-door height in.	57 <sup>5</sup> / <sub>8</sub> (146.3 cm)	57 <sup>5</sup> / <sub>8</sub> (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83 <sup>1</sup> / <sub>4</sub> (211.5 cm)	83 <sup>1</sup> / <sub>4</sub> (211.5 cm)
RHT Net Wt. lbs. <sup>1</sup>	345 (156 kg)	550 (249 kg)
AHT Net Wt. lbs. <sup>1</sup>	305 (138 kg)	480 (218 kg)
No. Standard Shelves	3	6
Shelf area sq. ft. <sup>2</sup>	14.6 (1.35 sq m)	29.2 (2.71 sq m)
ELECTRICAL DATA		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes	8.0	8.5
REFRIGERATION DATA		
Refrigerant	R-450A	R-450A
Refrigerant Charge Amount	14 oz	27 oz
BTU/HR H.P. <sup>3</sup>	2220 (1/3 hp)	2220 (1/3 hp)

### NOTES

- NOTE: Figures in parentheses reflect metric equivalents
- For shipping weights and dimensions please refer to spec sheet form TR35875.
  - Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.
  - Based on a 90°F ambient and 20°F evaporator. For information on remote models, please refer to form TR35837.
  - 12" Top clearance preferred for optimum performance and service access.



### Equipped With One NEMA 5-15 P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35757 (REV. 01-21-19)

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

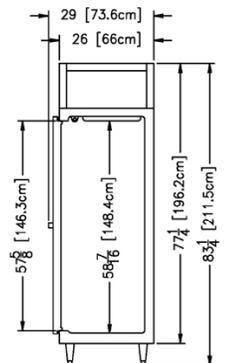
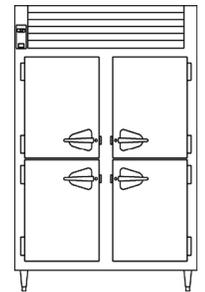
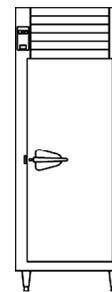
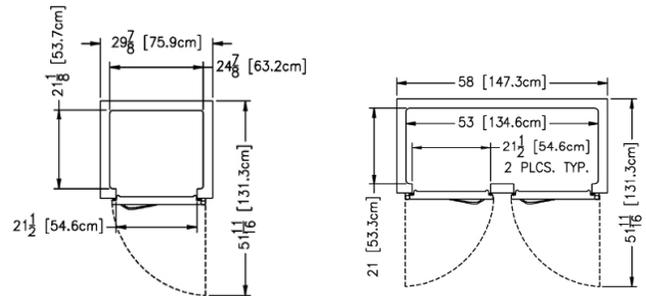
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offer a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Both standard and optional interior arrangements are installed at the factory.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



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**Traulsen**

Project	Quantity	Item #
Model Specified		CSI Section 11400

### "D-Width" Reach-In Freezer Models/ Self-Contained



Model Shown One Section  
(shown with optional casters)



Stainless Exterior  
& Interior



Stainless Exterior,  
Anodized Alumi-  
num Interior

### One & Two Section Models, 26" Deep

1-Section Full Length Door Model	RLT132DUT-FHS
2-Section Full Length Door Model	RLT232DUT-FHS
1-Section Half Length Door Model	RLT132DUT-HHS
2-Section Half Length Door Model	RLT232DUT-HHS

1-Section Full Length Door Model	ALT132DUT-FHS
2-Section Full Length Door Model	ALT232DUT-FHS
1-Section Half Length Door Model	ALT132DUT-HHS
2-Section Half Length Door Model	ALT232DUT-HHS

The "D-Width" reach-in freezer models are all designed to offer maximum interior storage capacity within a narrow 24" or 48" footprint. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

### Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-448A
- Rear Biased Return Air Duct (2 section models only)
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120 Degrees
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging: 132D = Right, 232D = Left/Right (other hinging not available for two-section models)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator (two section models only)
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Raised Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

### Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Pans
- Additional Wire Shelves or Optional Stainless Steel Shelves
- EZ-Change Interiors (#1 tray slides and shelves)
- EZ-Open Foot Pedal (full height doors only)
- Optional 220/50/1 or 208/115/60/1 Voltages
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 4-5/8" or 6" High Casters In Lieu of Legs
- Other Support Options: 4-1/2" High Base or 6" High Kickplate
- Remote Applications (see form TR35837 for more details)
- Water Cooled Self-Contained Condenser Suitable for Connection To Glycol



Listed by Underwriters Laboratories Inc.,  
to U.S. and Canadian safety standards and  
Listed by NSF International.



Approval: \_\_\_\_\_



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 22 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120 degrees. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ALT132DUT	R/ALT232DUT
Net capacity cu. ft.	17.7 (501 cu l)	42.0 (1190 cu l)
Length - overall in.	24 (61.0 cm)	48 (121.9 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)
Depth - less handle in.	33 $\frac{3}{4}$ (84.4 cm)	33 $\frac{3}{4}$ (84.4 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	54 $\frac{3}{4}$ (139.1 cm)	54 $\frac{3}{4}$ (139.1 cm)
Clear door width in.	18 $\frac{5}{8}$ (47.3 cm)	19 $\frac{9}{16}$ (49.7 cm)
Clear half-door height in.	27 $\frac{1}{2}$ (69.9 cm)	27 $\frac{1}{2}$ (69.9 cm)
Clear full-door height in.	57 $\frac{5}{8}$ (146.3 cm)	57 $\frac{5}{8}$ (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83 $\frac{1}{4}$ (211.5 cm)	83 $\frac{1}{4}$ (211.5 cm)
RLT Net Wt. lbs. <sup>3</sup>	360 (163 kg)	619 (280 kg)
ALT Net Wt. lbs. <sup>3</sup>	320 (145 kg)	560 (254 kg)
No. Standard Shelves	3	6
Shelf area sq. ft. <sup>1</sup>	14.2 (1.3 sq m)	31.6 (2.9 sq m)
ELECTRICAL DATA		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes	11.5	14.9
REFRIGERATION DATA		
Refrigerant	R-448A	R-448A
Refrigerant Charge oz.	12 (340.2 g)	25 (708.7 g)
BTU/HR H.P. <sup>2</sup>	1890 (1/2 HP)	3070 (3/4 HP)

#### NOTES

NOTE: Figures in parentheses reflect metric equivalents

- Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.
- Based on a 90°F ambient and -20°F evaporator.
- For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to form TR35837.
- 12" Top clearance preferred for optimum performance and service access.



### 1 Section Models Equipped With One NEMA 5-15P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.



### 2 Section Models Equipped With One NEMA 5-20P Plug

NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice  
Part No. TR35765 (REV. 07-08-19)

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-448A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve and air-cooled hermetic compressor. Two section models include a large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. One section models include an interior mounted ceiling coil. A 9' cord and plug is provided. Standard operating temperature is 0 to -5°F.

### Controller

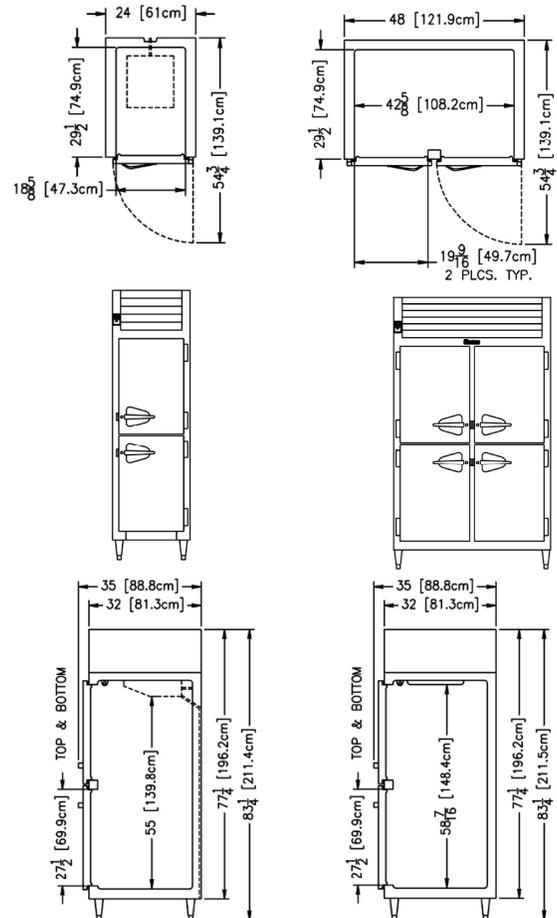
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Section - R/ALT132DUT

Section - R/ALT232DUT

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Project	Quantity	Item #
Model Specified		CSI Section 11400

### "N-Width" Reach-In Freezer Models/ Self-Contained



Model Shown Two Section  
(shown with standard left/right hinging and optional casters)



### Two & Three Section Models, 32" Deep

2-Section Full Length Door Model	RLT232NUT-FHS*
3-Section Full Length Door Model	RLT332NUT-FHS
2-Section Half Length Door Model	RLT232NUT-HHS*
3-Section Half Length Door Model	RLT332NUT-HHS



2-Section Full Length Door Model	ALT232NUT-FHS*
3-Section Full Length Door Model	ALT332NUT-FHS
2-Section Half Length Door Model	ALT232NUT-HHS*
3-Section Half Length Door Model	ALT332NUT-HHS

The "N-Width" reach-in freezer models are all designed to offer maximum interior storage capacity within a slightly narrower left to right footprint. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

### Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-448A
- -10°F Capable
- Rear Biased Return Air Duct
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120 Degrees
- Guaranteed For Life Horizontal Work Flow Door Handles
- Standard Door Hinging: 232N = Left/Right, 332N = Left/Right/Right (other hinging available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Raised Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

### Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Remote Applications (see form TR35837 for more details)
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Pans
- No. 4 Type Tray Slides To Accommodate (1) 18" x 26" Sheet Pans (chrome rod type, equips 1/2 section)
- Universal Type Tray Slides To Accommodate Either (1) 18" x 26" or (2) 14" x 18", or (2) 12" x 20" Pans
- EZ-Change Interiors (#1, universals, universal heavy duty tray slides and shelves)
- EZ-Open Foot Pedal (full height doors only)
- Additional Wire Shelves or Optional Stainless Steel Shelves
- Optional 220/50/1 or 208/115/60/1 Voltages
- Kool Klad Exterior Laminate Decor (specify brand/color)
- Set of Four (4) 4-5/8" or 6" High Casters In Lieu of Legs
- Other Support Options: 4-1/2" High Base or 6" High Kickplate



\* Noted models are ENERGY STAR® listed. Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 22 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120 degrees. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ALT232NUT	R/ALT332NUT
Net capacity cu. ft.	46.0 (1303 cu l)	69.5 (1969 cu l)
Length - overall in.	52 $\frac{1}{8}$ (132.4 cm)	76 $\frac{5}{16}$ (193.8 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)
Depth - less handle in.	33 $\frac{3}{4}$ (84.4 cm)	33 $\frac{3}{4}$ (84.4 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	57 $\frac{5}{8}$ (146.3 cm)	57 $\frac{5}{8}$ (146.3 cm)
Clear door width in.	21 $\frac{1}{8}$ (53.6 cm)	21 $\frac{1}{8}$ (53.6 cm)
Clear half-door height in.	27 $\frac{1}{2}$ (69.9 cm)	27 $\frac{1}{2}$ (69.9 cm)
Clear full-door height in.	57 $\frac{5}{8}$ (146.3 cm)	57 $\frac{5}{8}$ (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83 $\frac{3}{4}$ (211.5 cm)	83 $\frac{3}{4}$ (211.5 cm)
RLT Net Wt. lbs. <sup>1</sup>	655 (297 kg)	870 (395 kg)
ALT Net Wt. lbs. <sup>1</sup>	600 (272 kg)	770 (349 kg)
No. Standard Shelves	6	9
Shelf area sq. ft. <sup>2</sup>	34.6 (3.21 sq m)	51.9 (4.82 sq m)
STANDARD ELECTRICAL & REFRIGERATION DATA		
Voltage	115/60/1	208/115/60/1
Feed wires with Ground	3	3
Full load amperes	15.7	16.0
Refrigerant	R-448A	R-448A
Refrigerant Charge oz.	29 (822.1 g)	29 (822.1 g)
BTU/HR H.P. <sup>3</sup>	3730 ( $\frac{3}{4}$ HP)	4100 ( $\frac{3}{4}$ HP)

### NOTES

- NOTE: Figures in parentheses reflect metric equivalents  
 1= For shipping weights and dimensions please refer to spec sheet form TR35875.  
 2= Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.  
 3= Based on a 90°F ambient and -10°F evaporator (-20°F for three section models). For information on remote models, please refer to form TR35837.  
 4= 12" Top clearance preferred for optimum performance and service access.

### 2 Section Models Equipped With One NEMA 5-20P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

### 3 Section Models Equipped With One NEMA L14-20P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35763 (REV. 07-08-19)

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-448A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Rear biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 0 to -5°F (all models are -10°F capable in up to 100°F ambient).

### Controller

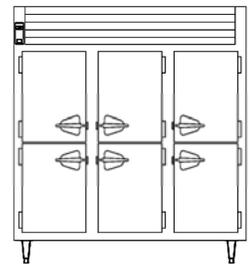
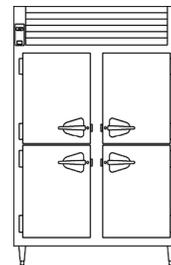
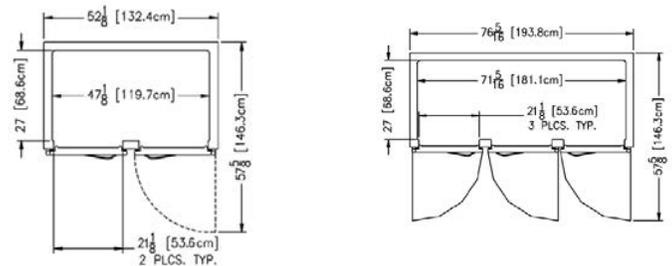
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

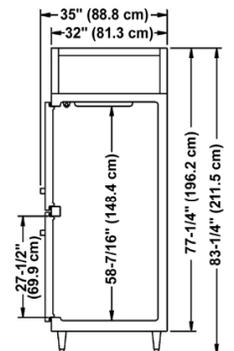
Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Section - All Models



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**Traulsen**

Project	Quantity	Item #
Model Specified		CSI Section 11400

### "N-Width" Reach-In Refrigerator Models/ Self-Contained



Model Shown Three Section



#### Two & Three Section Models, 32" Deep

2-Section Full Length Door Model	RHT232NUT-FHS*
3-Section Full Length Door Model	RHT332NUT-FHS
2-Section Half Length Door Model	RHT232NUT-HHS*
3-Section Half Length Door Model	RHT332NUT-HHS



2-Section Full Length Door Model	AHT232NUT-FHS*
3-Section Full Length Door Model	AHT332NUT-FHS
2-Section Half Length Door Model	AHT232NUT-HHS*
3-Section Half Length Door Model	AHT332NUT-HHS

The "N-Width" reach-in refrigerator models are all designed to offer maximum interior storage capacity within a slightly narrower left to right footprint. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

### Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handles
- Standard Door Hinging: 232N = Left/Right, 332N = Left/Right/Right (other hinging available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

### Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Pans
- No. 4 Type Tray Slides To Accommodate (1) 18" x 26" Sheet Pans (chrome rod type, equips 1/2 section)
- Universal Type Tray Slides To Accommodate Either (1) 18" x 26" or (2) 14" x 18", or (2) 12" x 20" Pans
- Additional Wire Shelves or Optional Stainless Steel Shelves
- EZ-Change Interiors (#1, universals, universal heavy duty tray slides and shelves)
- EZ-Open Foot Pedal (full height doors only)
- Locking Hasps (padlocks supplied by others)
- Optional 220/50/1 or 208/115/60/1 Voltages
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 4-5/8" or 6" High Casters In Lieu of Legs
- Other Support Options: 4-1/2" High Base or 6" High Kickplate
- Remote Applications (see form TR35837 for more details)
- Remote For Use With 20°F Glycol System
- Clear Glass Door(s) In Place Of One Or More Solid Door(s)



\* Noted models are ENERGY STAR® listed. Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.

**3-YEAR**  
PARTS & LABOR WARRANTY

Approval: \_\_\_\_\_

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**Traulsen**

Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge aluminized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AHT232NUT	R/AHT332NUT
Net capacity cu. ft.	46.0 (1303 cu l)	69.5 (1969 cu l)
Length - overall in.	52½ (132.4 cm)	76⅝ (193.8 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)
Depth - less handle in.	33¾ (84.4 cm)	33¾ (84.4 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	57⅝ (146.3 cm)	57⅝ (146.3 cm)
Clear door width in.	21⅝ (53.6 cm)	21⅝ (53.6 cm)
Clear half-door height in.	27½ (69.9 cm)	27½ (69.9 cm)
Clear full-door height in.	57⅝ (146.3 cm)	57⅝ (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83¼ (211.5 cm)	83¼ (211.5 cm)
RHT Net Wt. lbs. <sup>1</sup>	560 (254 kg)	785 (356 kg)
AHT Net Wt. lbs. <sup>1</sup>	485 (220 kg)	685 (311 kg)
No. Standard Shelves	6	9
Shelf area sq. ft. <sup>2</sup>	34.6 (3.21 sq m)	51.9 (4.82 sq m)
ELECTRICAL DATA		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes	8.2	11.8
REFRIGERATION DATA		
Refrigerant	R-450A	R-450A
Refrigerant Charge Amount	24	30
BTU/HR H.P. <sup>3</sup>	4610 (⅔ HP)	4900 (¾ HP)

### NOTES

- NOTE: Figures in parentheses reflect metric equivalents
- For shipping weights and dimensions please refer to form TR35875.
  - Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.
  - Based on a 90°F ambient and 20°F evaporator. For information on remote models, please refer to form TR35837.
  - 12" Top clearance preferred for optimum performance and service access.



### Equipped With One NEMA 5-15 P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35756 (REV. 01-21-19)

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a full size StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

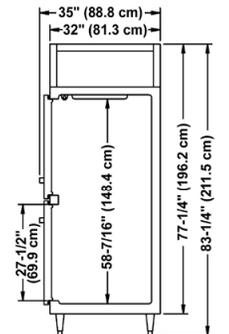
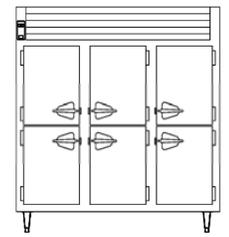
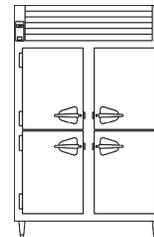
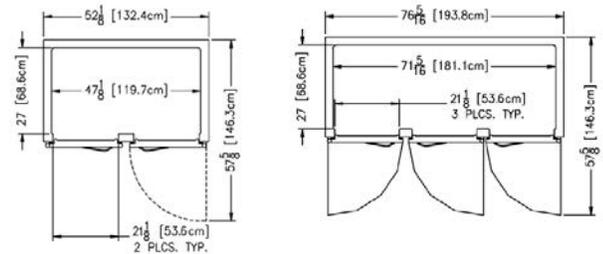
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Standard interior arrangements include three (3) wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Standard interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## "N-Width" Reach-In Refrigerator-Freezer Models/Self-Contained



Model Shown Two Section  
(shown with optional casters)



Stainless Exterior  
& Interior

### Two & Three Section Models, 32" Deep

2-Section Full Length Door Model	RDT232NUT-FHS
3-Section Full Length Door Model	RDT332NUT-FHS
2-Section Half Length Door Model	RDT232NUT-HHS
3-Section Half Length Door Model	RDT332NUT-HHS



Stainless Exterior,  
Anodized Alumi-  
num Interior

2-Section Full Length Door Model	ADT232NUT-FHS
3-Section Full Length Door Model	ADT332NUT-FHS
2-Section Half Length Door Model	ADT232NUT-HHS
3-Section Half Length Door Model	ADT332NUT-HHS

The "N-Width" reach-in refrigerator/freezer models are all designed to offer maximum interior storage capacity. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control With LED Display
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Dual Refrigeration Systems Using R-450A & R-448A Refrigerants
- Rear Biased Return Air Duct (2 & 3 section models only)
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120 Degrees
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging: 232N = Left/Right, 332N = Left/Right/Right (other hings available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Adjustable Wire Shelves (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Raised Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached (2 section models only)
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, Adjustable To 2" O.C.
- No. 4 Type Tray Slides To Accommodate (1) 18" x 26" Sheet Pans (chrome rod type, equips 1/2 section)
- Universal Type Tray Slides To Accommodate Either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, or (2) 12" x 20" Steam Table Pans, Adjustable To 4" O.C.
- Additional Wire Shelves
- EZ-Change Interiors (#1, universals, universal heavy duty tray slides and shelves)
- EZ-Open Foot Pedal (full height doors only)
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- 208/115/60/1 Voltage In Lieu Of Standard 115/60/1
- Stainless Steel Shelves
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" or 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Prison/Correctional Facilities Options
- Clear Glass Door(s) In Place Of One Or More Refrigerator Section Door(s)
- Water Cooled Self-Contained Condenser Suitable For Connection To Glycol
- Wine Temperature Application

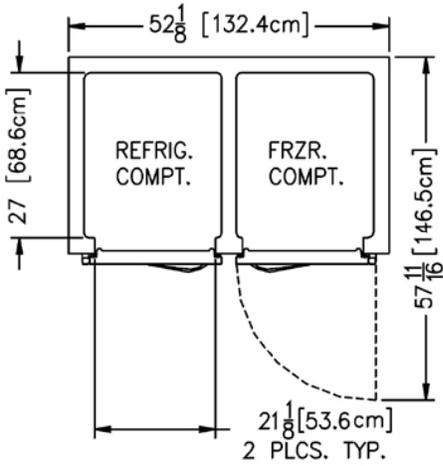


Approval: \_\_\_\_\_

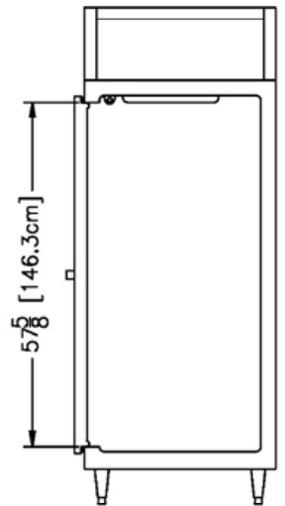
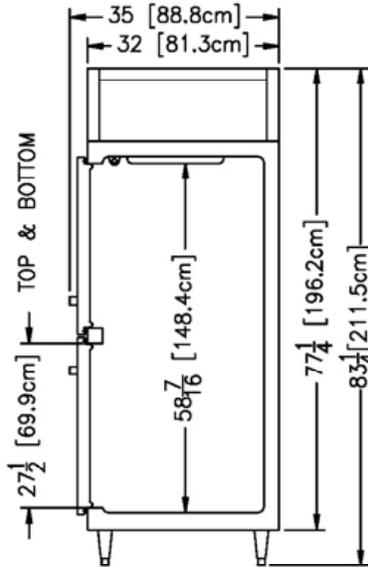
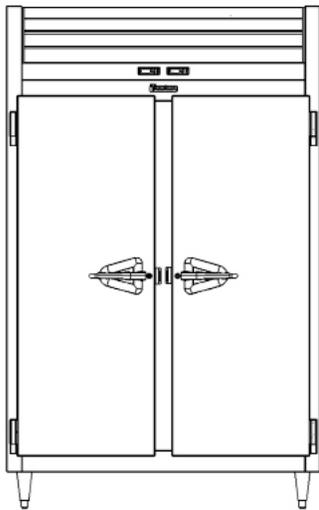


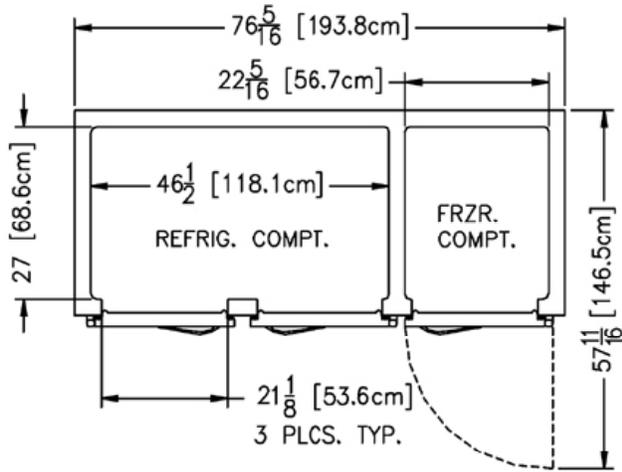
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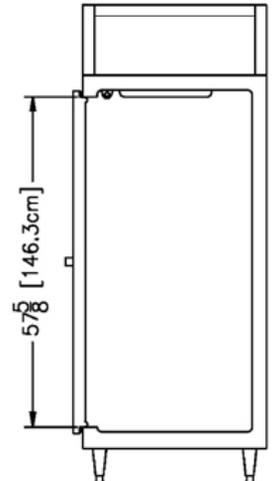
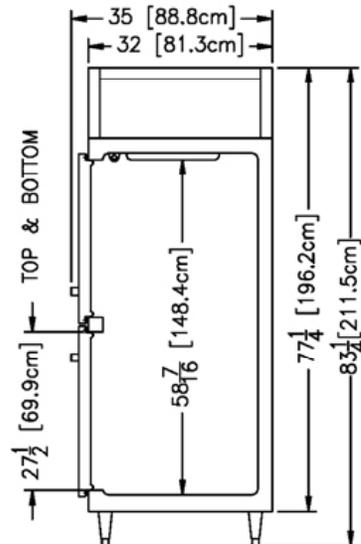
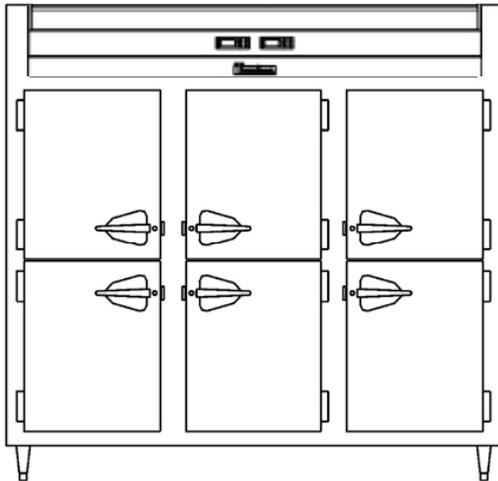


R/ADT232NUT





R/ADT332NUT



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 22 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket-protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120 Degrees. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ADT232NUT	R/ADT332NUT
Net capacity total cu. ft.	38.5 (1091 cu l)	60.7 (1720 cu l)
Net capacity refriger. cu. ft.	19.7 (558 cu l)	41.9 (1187 cu l)
Net capacity freezer cu. ft.	18.8 (533 cu l)	18.8 (533 cu l)
Length - overall in.	52 $\frac{1}{8}$ (132.4 cm)	76 $\frac{5}{16}$ (193.8 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	57 $\frac{11}{16}$ (146.5 cm)	57 $\frac{11}{16}$ (146.5 cm)
Clear door width in.	21 $\frac{1}{8}$ (53.6 cm)	21 $\frac{1}{8}$ (53.6 cm)
Clear half-door height in.	27 $\frac{1}{2}$ (69.9 cm)	27 $\frac{1}{2}$ (69.9 cm)
Clear full-door height in.	57 $\frac{5}{8}$ (146.3 cm)	57 $\frac{5}{8}$ (146.3 cm)
Height - overall on 6" legs <sup>3</sup>	83 $\frac{3}{4}$ (211.5 cm)	83 $\frac{3}{4}$ (211.5 cm)
No. Standard Shelves	6	9
Shelf area total sq. ft. <sup>1</sup>	29.2 (2.71 sq m)	51.9 (4.82 sq m)
Shelf area refriger. sq. ft. <sup>1</sup>	14.6 (1.36 sq m)	34.6 (3.21 sq m)
Shelf area freezer sq. ft. <sup>1</sup>	14.6 (1.36 sq m)	17.3 (1.61 sq m)
RDT Net Wt. lbs.	665 (302 kg)	860 (390 kg)
ADT Net Wt. lbs.	585 (265 kg)	750 (340 kg)
ELECTRICAL DATA		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes	16.0	21.6
REFRIGERATION DATA		
Refrigerant - Refrigerator	R-450A	R-450A
Refrigerant Charge Amount	14 oz	24 oz
Refrigerant - Freezer	R-448A	R-448A
Refrigerant Charge Amount	13 oz	14 oz
BTU/HR H.P. - Refrigerator <sup>2</sup>	2240 ( $\frac{1}{3}$ HP)	4200 ( $\frac{1}{2}$ HP)
BTU/HR H.P. - Freezer <sup>2</sup>	1930 ( $\frac{1}{2}$ HP)	2160 ( $\frac{1}{2}$ HP)

### NOTES

NOTE: Figures in parentheses reflect metric equivalents

- 1= Area of standard shelf complement only, does not include storage area of additional shelves or available on cabinet bottom.  
 2= Based on a 90°F ambient and 20°F evaporator for the refrigerated section and a 90°F ambient and -20°F evaporator for the freezer section.  
 3= 12" Top clearance preferred for optimum performance and service access.

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A and R-448A refrigerants is conveniently located behind the one piece louver assembly. These models feature an easy to clean front facing condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator.

Rear biased return air duct (2 & 3 section models only) protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation.

A 9' cord and plug is provided standard on two section models. Standard operating temperatures are 34° to 38°F for the refrigerator compartment and 0 to -5°F for the freezer compartment.

### Controller

Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



2 Section Models  
Equipped With One NEMA 5-20 P Plug  
(2 section models only)

NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35780 (REV. 10-30-19)

**TRAUlsen**  
4401 BLUE MOUND RD.  
PHONE 1 (800) 825-8220  
Website: www.traulsen.com

FT. WORTH, TX 76106  
FAX-MKTG. 1 (817) 624-4302

Project	Quantity	Item #
Model Specified		CSI Section 11400

## "D-Width" Hinged Glass Door Reach-In Refrigerators/Self-Contained



Model Shown One Section  
(shown with optional interior arrangements & casters)



Stainless Exterior  
& Interior



Stainless Exterior,  
Anodized Alumi-  
num Interior

### One & Two Section Models, 32" Deep

1-Section Full Length Door Model	RHT132DUT-FHG
2-Section Full Length Door Model	RHT232DUT-FHG
1-Section Half Length Door Model	RHT132DUT-HHG
2-Section Half Length Door Model	RHT232DUT-HHG

1-Section Full Length Door Model	AHT132DUT-FHG
2-Section Full Length Door Model	AHT232DUT-FHG
1-Section Half Length Door Model	AHT132DUT-HHG
2-Section Half Length Door Model	AHT232DUT-HHG

These "D-Width" reach-in refrigerator models are equipped with hinged glass doors in order to maximize product visibility. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full or Half Length Hinged Glass Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Stainless Steel Vertical Door Handle(s)
- Standard Door Hinging: 132D = Right, 232D = Left/Right, (other hinging not available for two-section models)
- LED Lights With Exterior Switch
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Pans
- Export 220/50/1 Voltage
- 208/115/60/1 Voltage In Lieu Of Standard 115/60/1
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" High Casters In Lieu of Legs
- Set of Four (4) 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Remote Applications (see spec sheet TR35837 for details)<sup>4</sup>



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides and lower assembly are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior is constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°. An external switch is provided to activate the interior LED lighting.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

The cabinet is insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AHT132DUT	R/AHT232DUT
Net capacity cu. ft.	17.7 (501 cu l)	42.0 (1190 cu l)
Length - overall in.	24 (61.0 cm)	48 (121.9 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	54¾ (139.1 cm)	54¾ (139.1 cm)
Clear door width in.	18½ (47.3 cm)	19⅞ (54.6 cm)
Clear half-door height in.	27½ (69.9 cm)	27½ (69.9 cm)
Clear full-door height in.	57¾ (146.3 cm)	57¾ (146.3 cm)
Height - overall on 6" legs <sup>3</sup>	83¼ (211.5 cm)	83¼ (211.5 cm)
No. Standard Shelves	3	6
Shelf area sq. ft. <sup>1</sup>	14.2 (1.3 sq m)	31.6 (2.9 sq m)
RHT Net Wt. lbs.	330 (150 kg)	574 (260 kg)
AHT Net Wt. lbs.	290 (132 kg)	446 (202 kg)
ELECTRICAL DATA		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes <sup>2</sup>	8.0	10.3
REFRIGERATION DATA		
Refrigerant	R-450A	R-450A
Refrigerant Charge Amount	10	27
BTU/HR H.P. <sup>4</sup>	1710 (½ HP)	4200 (½ HP)

### NOTES

NOTE: Figures in parentheses reflect metric equivalents

1= Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.

2= Amp figure shown as supplied with standard LED lighting

3= Based on a 90° F ambient and 20° F evaporator.

4= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to spec sheet TR35832.

5= 12" Top clearance preferred for optimum performance and service access.

 1 Section Models  
Equipped With One  
NEMA 5-15P Plug

 2 Section Models  
Equipped With One  
NEMA 5-20P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35832 (REV. 01-21-19)

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece lower assembly. It features a fin ess StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, plenum effect blower coil, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

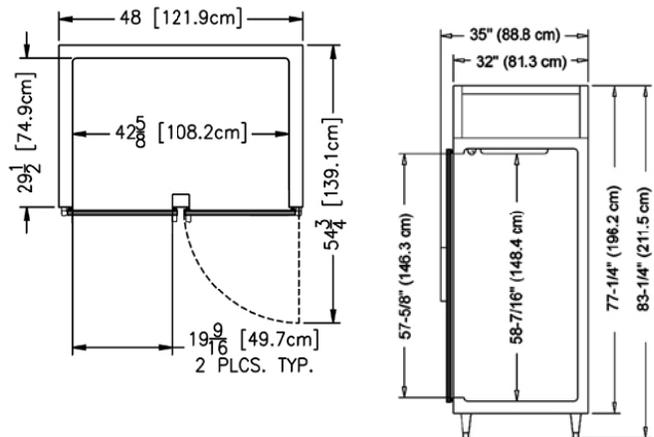
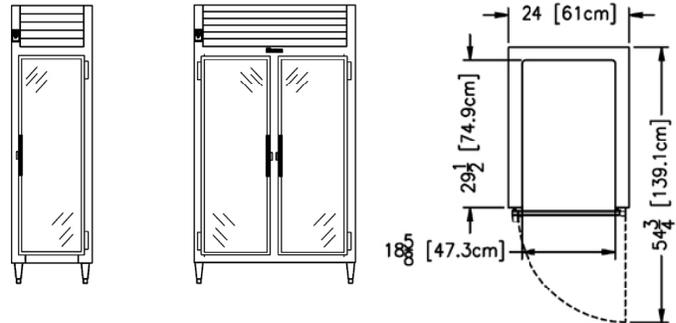
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Interior arrangements are installed at the factory.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



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**Traulsen**

Project	Quantity	Item #
Model Specified		CSI Section 11400

**"Extra Wide" Reach-In Refrigerator-Freezer Models/Self-Contained**

**One Section Models, 32" Deep**



Model Shown One Section  
(shown with optional casters)



Stainless Exterior & Interior

1-Section Half Length Door Model RDT132EUT-HHS



Stainless Exterior, Anodized Aluminum Interior

1-Section Half Length Door Model ADT132EUT-HHS

The "Extra Wide" reach-in refrigerator/freezer models are all designed to offer maximum interior storage capacity. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

**Standard Product Features**

- Traulsen's Smart Control With LED Display
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Dual Refrigeration Systems Using R-450A & R-404A Refrigerants
- Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handles
- Standard Door Hinging: 132EW = Right (other hingsings available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Adjustable Wire Shelves (installed at the factory)
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

**Options & Accessories**

- Stainless Steel Finished Back With Rear Louvers
- Additional Wire Shelves
- Locking Hasps (padlocks supplied by others)
- No. 1 Type Tray Slides To Accommodate Either (1) 26" x 18" Meat Lug or (1) 18" x 26" Sheet Pan (lengthwise) Per Pair
- Plated Shelves to Fit Tray Slides
- Stainless Steel Shelves
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" High Casters In Lieu of Legs
- Set of Four (4) 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Prison/Correctional Facilities Options
- Remote Applications (see spec sheet TR35837 for details)
- Water Cooled Self-Contained Condenser Suitable For Connection To Glycol



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°. Hinges include a concealed switch to automatically activate the interior incandescent lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ADT132EUT
Net capacity total cu. ft.	23.6 (654 cu l)
Net capacity refrig. cu. ft.	11.8 (327 cu l)
Net capacity freezer cu. ft.	11.8 (327 cu l)
Length - overall in.	33 <sup>1</sup> / <sub>4</sub> (83.1 cm)
Depth - overall in.	35 (88.8 cm)
Depth - over body in.	32 (81.3 cm)
Clear door width in.	26 <sup>1</sup> / <sub>2</sub> (66.3 cm)
Clear half-door height in.	27 <sup>13</sup> / <sub>16</sub> (69.5 cm)
Clear full-door height in.	n/a
Height - overall on 6" legs <sup>3</sup>	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)
No. Standard Shelves	2
ELECTRICAL DATA	
Voltage	115/60/1
Feed wires with Ground	3
Full load amperes	10.7
REFRIGERATION DATA	
Refrigerant - Refrigerator	R-450A
Refrigerant Charge Amount	11 oz
Refrigerant - Freezer	R-404A
Refrigerant Charge Amount	12 oz
BTU/HR H.P. - Refrigerator <sup>1</sup>	1130 (1/8 HP)
BTU/HR H.P. - Freezer <sup>1</sup>	1440 (1/8 HP)
SHIPPING DATA <sup>2</sup>	
Length - crated in.	40 (100 cm)
Depth - crated in.	43 (109 cm)
Height - crated in.	83 <sup>1</sup> / <sub>2</sub> (212 cm)
Volume - crated cu. ft.	83 (2351 cu l)
RDT Net Wt. lbs.	455 (206 kg)
RDT Gross Wt. lbs.	545 (247 kg)
ADT Net Wt. lbs.	405 (184 kg)
ADT Gross Wt. lbs.	495 (225 kg)

#### NOTES

NOTE: Figures in parentheses reflect metric equivalents

1= Based on a 90° F ambient and 20° F evaporator for the refrigerated section and a 90° F ambient and -20° F evaporator for the freezer section.

2= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to spec sheet TR35837.

3= 12" Top clearance preferred for optimum performance and service access.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A and R-404A refrigerants is conveniently located behind the one piece louver assembly. These models feature interior mounted coils.

A 9' cord and plug is provided standard. Standard operating temperatures are 34 to 38°F for the refrigerator compartment and 0 to -5°F for the freezer compartment.

### Controller

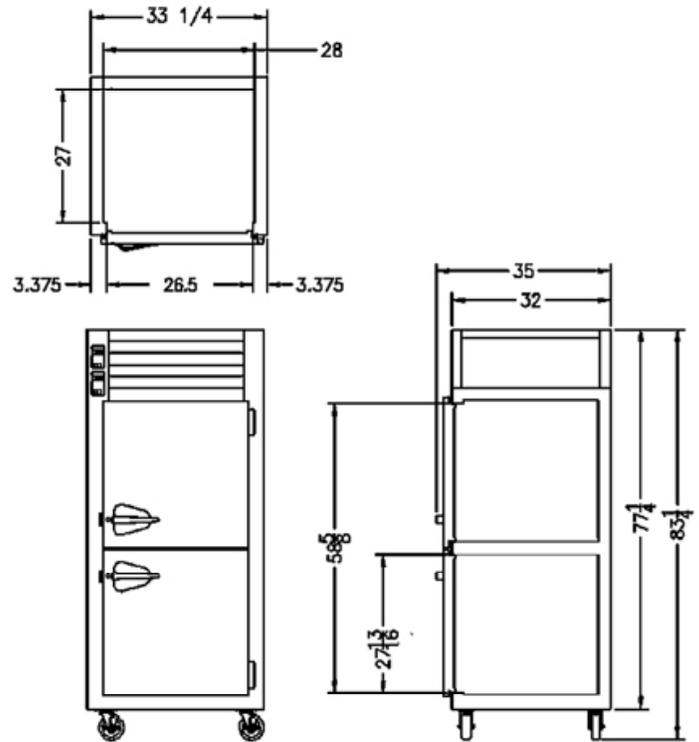
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Standard interior arrangements include two (2) coated wire shelves, one per compartment, mounted on shelf pins. Recommended load limit per shelf should not exceed 225 lbs. Interior arrangements are completely installed at the factory.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Equipped With One NEMA 5-15 P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

**NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.**

Continued product development may necessitate specification changes without notice

Part No. TR36129 (REV. 02-05-19)

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**Traulsen**

Project	Quantity	Item #
Model Specified		CSI Section 11400

## Reach-In/Pass-Thru Refrigerated-Heated Models/Self-Contained



INTELA-TRAUL®  
Equipped!



Model Shown One Section  
(shown with standard right hinging)



Stainless Exterior  
& Interior

**Two Section Models, 32" Deep**  
Full Length Door Reach-In Model RDH232WUT-FHS  
Half Length Door Reach-In Model RDH232WUT-HHS



Stainless Exterior,  
Anodized Aluminum Interior

Full Length Door Reach-In Model ADH232WUT-FHS  
Half Length Door Reach-In Model ADH232WUT-HHS

The reach-in refrigerated/heated models are all designed to offer maximum interior storage capacity. Each is supplied standard with such high quality features as balanced refrigeration systems, micro-processor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- INTELA-TRAUL® Microprocessor Control System
- One-Time Start-Up Temperature Adjustment Feature & ON/OFF Switch (for heated compartment only)
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges & Door Handles
- Standard Door Hinging: 232W = Left/Right, F & R: 232WP = Left/Right (other hinging available)
- Stainless Steel Breaker Caps
- Adjustable Wire Shelves (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Stainless Steel One-Piece Louver Assembly & Heater Guards
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, Adjustable To 2" O.C.
- No. 4 Type Tray Slides To Accommodate (1) 18" x 26" Sheet Pans (chrome rod type, equips 1/2 section)
- Universal Type Tray Slides To Accommodate Either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, or (2) 12" x 20" Steam Table Pans, Adjustable To 4" O.C.
- Additional Wire Shelves
- EZ-Change Interiors (#1, universals, universal heavy duty tray slides and shelves)
- EZ-Open Foot Pedal (full height doors only)
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- Stainless Steel Shelves
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" High Casters In Lieu of Legs
- Set of Four (4) 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Prison/Correctional Facilities Options
- Remote Applications (see spec sheet TR35837 for details)
- Clear Glass Door(s) In Place Of One Or More Door(s)

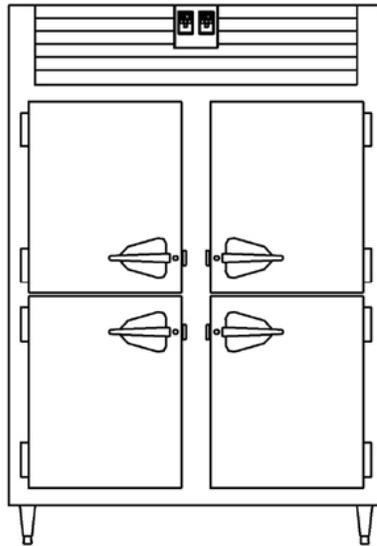


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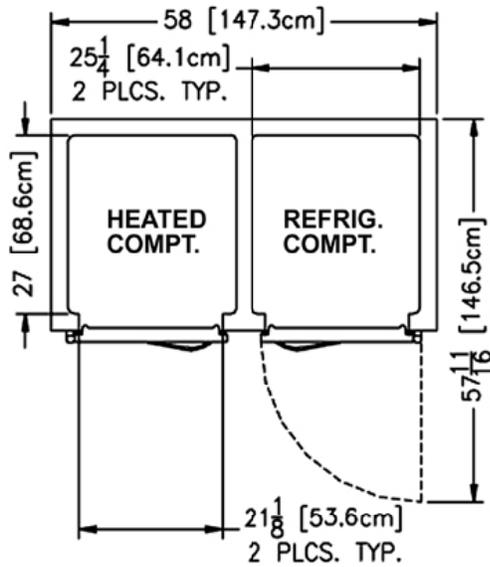


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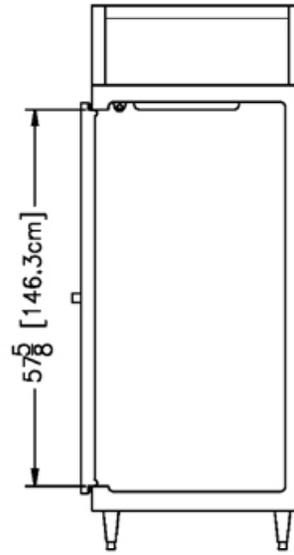
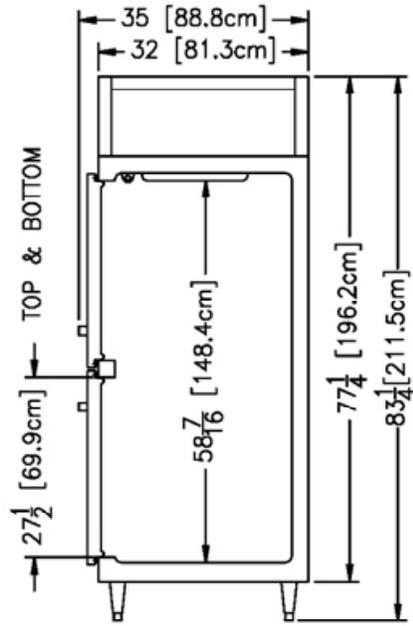
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FAX-MKTG. 1 (817) 624-4302



Elevation - R/ADH232WUT



Plan - R/ADH232WUT



Section - R/ADH232WUT

**Traulsen**

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FT. WORTH, TX 76106  
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Project

Quantity

Item #

Model Specified

CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, and bottom are constructed of heavy gauge galvanized steel. The exterior cabinet back on reach-in models is constructed of heavy gauge aluminized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and doors are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ADH232WUT
Cabinet Type	Reach-In
Net capacity total cu. ft.	51.6 (1462 cu l)
Length - overall in.	58 (147.3 cm)
Depth - overall in.	35 (88.8 cm)
Depth - over body in.	32 (81.3 cm)
Depth - door(s) open 90° in.	57 <sup>1</sup> / <sub>16</sub> (146.5 cm)
Clear door width in.	21 <sup>1</sup> / <sub>8</sub> (53.6 cm)
Clear half-door height in.	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)
Clear full-door height in.	57 <sup>3</sup> / <sub>8</sub> (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)
No. Standard Shelves	6
Shelf area total sq. ft. <sup>1</sup>	37.6 (3.49 sq m)
Shelf area refrigerator. sq. ft. <sup>1</sup>	18.8 (1.75 sq m)
Shelf area heated section sq. ft. <sup>1</sup>	18.8 (1.75 sq m)
RDH Net Wt. lbs. <sup>3</sup>	630 (286 kg)
ADH Net Wt. lbs. <sup>3</sup>	550 (249 kg)
<b>ELECTRICAL DATA</b>	
Voltage	208/115/60/1
Feed wires with Ground	4
Heater Wattage @ 208V	1500
Full load amperes	13.5
<b>REFRIGERATION DATA</b>	
Refrigerant	R-450A
Refrigerant Charge Amount	16 oz
BTU/HR H.P. <sup>2</sup>	2220 (1/2 HP)

### NOTES

- NOTE: Figures in parentheses reflect metric equivalents
- 1= Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.
- 2= Based on a 90°F ambient and 20°F evaporator.
- 3= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to spec sheet TR35837.
- 4= 12" Top clearance preferred for optimum performance and service access.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. These models feature an easy to clean front facing condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator.

Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation

A 9' cord and plug is provided standard. Standard operating temperatures are 34 to 38°F for the refrigerator compartment and 135 to 180°F for the heated compartment.

### Heating System

A low watt density, serpentine style, heater is employed for the generation of electric heat. Low velocity air is forced across its large surface area to efficiently move heat radiating away from these through a down-air distribution duct, where it is then evenly distributed throughout the cabinet, assuring the proper holding environment for hot food product, without drying. A vent, located at the top of the cabinet, is included for positive humidity control.

### Controller

The easy to use water resistant INTELA-TRAUL® microprocessor control system is supplied standard. It includes a 3-Digit LED Display and Fahrenheit or Celsius Temperature Scale Display Capability. In addition it includes audio/visual alarms for: Hi/Lo Cabinet Temperature, Door Open, Clean Condenser, Evaporator Coil and Discharge Line Sensor Failures, and Power Supply Interruption. A separate control is provided for both the refrigerator and freezer compartments.

### Interior

Standard interior arrangements include three (3) coated wire shelves per section, mounted on pilasters. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



## 2 Section Models Equipped With One NEMA L14-20P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

**NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.**

Continued product development may necessitate specification changes without notice

Part No. TR35785 (REV. 01-08-17)

**TRAULSEN**  
4401 BLUE MOUND RD.  
PHONE 1 (800) 825-8220  
Website: [www.traulsen.com](http://www.traulsen.com)

FT. WORTH, TX 76106  
FAX-MKTG. 1 (817) 624-4302

Project	Quantity	Item #
Model Specified		CSI Section 11400

## Reach-In/Pass-Thru Refrigerated-Heated Models/Self-Contained



Model Shown One Section  
(shown with optional casters)



Stainless Exterior  
& Interior

Half Length Door Reach-In Model RDH132WUT-HHS  
Half Length Door Pass-Thru Model RDH132WPUT-HHS



Stainless Exterior,  
Anodized Alumi-  
num Interior

Half Length Door Reach-In Model ADH132WUT-HHS  
Half Length Door Pass-Thru Model ADH132WPUT-HHS

The reach-in and pass-thru refrigerated/heated models are all designed to offer maximum interior storage capacity. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- INTELA-TRAUL® Microprocessor Control System
- One-Time Start-Up Temperature Adjustment Feature & ON/OFF Switch (for heated compartment only)
- Balanced, Self-Contained Refrigeration System Using R-450A
- Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging: 132W = Right, F & R: 132WP = Right (other hings available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Adjustable Wire Shelves (installed at the factory)
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Stainless Steel One-Piece Louver Assembly & Heater Guards
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers (reach-in models only)
- Re-Hinging Feature For Door(s)
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, Adjustable To 2" O.C.
- Universal Type Tray Slides To Accommodate Either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, or (2) 12" x 20" Steam Table Pans, Adjustable To 4" O.C.
- Additional Wire Shelves
- EZ-Change Interiors (#1, universals, universal heavy duty tray slides and shelves)
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- Stainless Steel Shelves
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" High Casters In Lieu of Legs
- Set of Four (4) 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Prison/Correctional Facilities Options
- Remote Applications (see spec sheet TR35837 for details)
- Clear Glass Door(s) In Place Of One Or More Door(s)

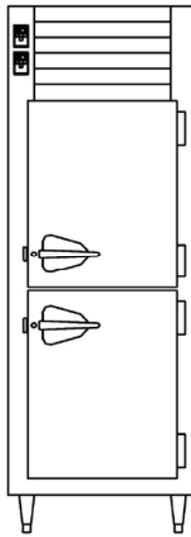


Approval: \_\_\_\_\_

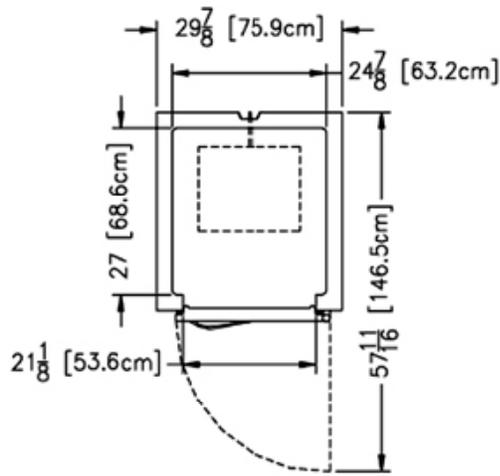


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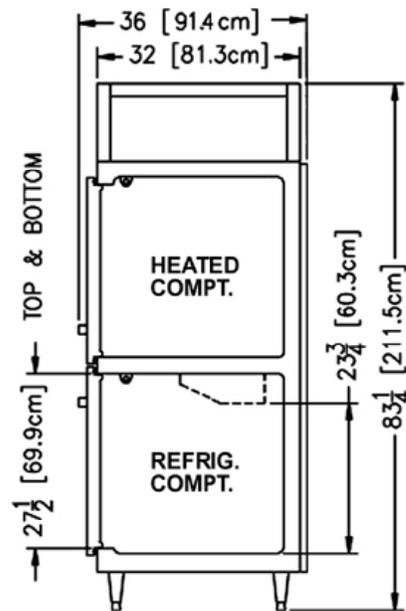
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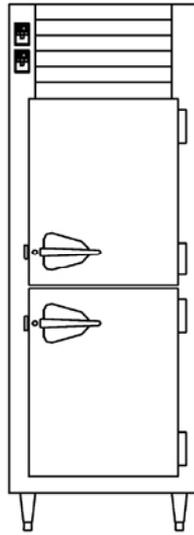
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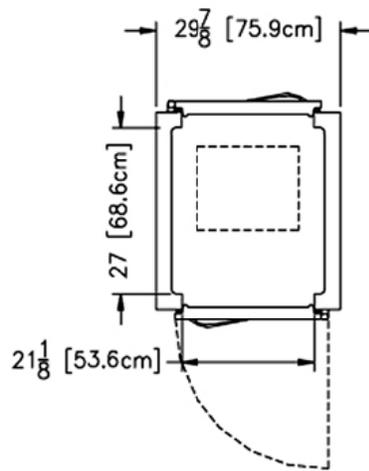
Plan - R/ADH132WUT



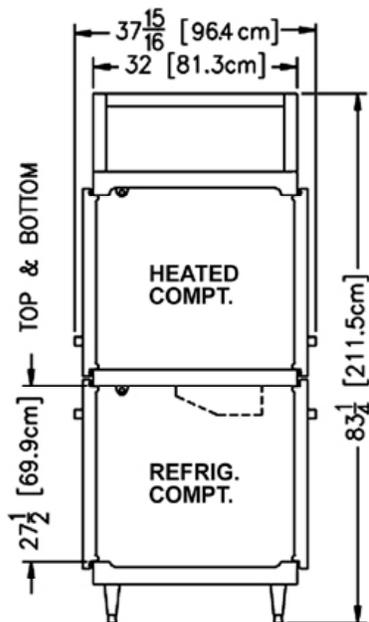
Section - R/ADH132WUT



Elevation - R/ADH132WPUT



Plan - R/ADT132WPUT



Section - R/ADH132WPUT

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, and bottom are constructed of heavy gauge galvanized steel. The exterior cabinet back on reach-in models is constructed of heavy gauge aluminized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and doors are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ADH132WUT	R/ADH132WPUP
Cabinet Type	Reach-In	Pass-Thru
Net capacity total cu. ft.	20.6 (584 cu l)	20.6 (584 cu l)
Length - overall in.	29 <sup>7</sup> / <sub>8</sub> (75.9 cm)	29 <sup>7</sup> / <sub>8</sub> (75.9 cm)
Depth - overall in.	35 (88.8 cm)	37 <sup>15</sup> / <sub>16</sub> (96.4 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)
Depth - door(s) open 90° in.	57 <sup>11</sup> / <sub>16</sub> (146.5 cm)	83 <sup>3</sup> / <sub>8</sub> (211.8 cm)
Clear door width in.	21 <sup>1</sup> / <sub>8</sub> (53.6 cm)	21 <sup>1</sup> / <sub>8</sub> (53.6 cm)
Clear half-door height in.	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)
Height - overall on 6" legs <sup>4</sup>	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)
No. Standard Shelves	2	2
Shelf area total sq. ft. <sup>1</sup>	28.0 (2.6 sq m)	28.0 (2.6 sq m)
Shelf area refrigerator. sq. ft. <sup>1</sup>	14.0 (1.3 sq m)	14.0 (1.3 sq m)
Shelf area heated section sq. ft. <sup>1</sup>	14.0 (1.3 sq m)	14.0 (1.3 sq m)
RDH Net Wt. lbs. <sup>3</sup>	380 (172 kg)	405 (184 kg)
ADH Net Wt. lbs. <sup>3</sup>	330 (150 kg)	355 (161 kg)
<b>ELECTRICAL DATA</b>		
Voltage	208/115/60/1	208/115/60/1
Feed wires with Ground	4	4
Wattage @ 208V	1500	1500
Full load amperes	11.0	11.0
<b>REFRIGERATION DATA</b>		
Refrigerant	R-450A	R-450A
Refrigerant Charge Amount	11 oz	11 oz
BTU/HR H.P. <sup>2</sup>	2220 (1/8 HP)	2220 (1/8 HP)

### NOTES

NOTE: Figures in parentheses reflect metric equivalents

- 1= Area of standard shelf complement only, does not include storage area of additional shelves or available on cabinet bottom.  
 2= Based on a 90°F ambient and 20°F evaporator.  
 3= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to spec sheet TR35837.  
 4= 12" Top clearance preferred for optimum performance and service access.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. These models feature an easy to clean front facing condenser, thermostatic expansion valve, air cooled hermetic compressor, large, high humidity evaporator coil. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation.

A 9' cord and plug is provided standard. Standard operating temperatures are 34 to 38°F for the refrigerator compartment and 135 to 180°F for the heated compartment.

### Heating System

A low watt density, serpentine style, heater is employed for the generation of electric heat. Low velocity air is forced across its large surface area to efficiently move heat radiating away from these through a down-air distribution duct, where it is then evenly distributed throughout the cabinet, assuring the proper holding environment for hot food product, without drying. A vent, located at the top of the cabinet, is included for positive humidity control.

### Controller

The easy to use water resistant INTELA-TRAUL® microprocessor control system is supplied standard. It includes a 3-Digit LED Display and Fahrenheit or Celsius Temperature Scale Display Capability. In addition it includes audio/visual alarms for: Hi/Lo Cabinet Temperature, Door Open, Clean Condenser, Evaporator Coil and Discharge Line Sensor Failures, and Power Supply Interruption. A separate control is provided for both the refrigerator and freezer compartments.

### Interior

Standard interior arrangements include two (2) wire shelves per section, mounted on pilasters. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Listed by Underwriters Laboratories Inc., and classified by Underwriters Laboratories Inc., in accordance with ANSI/NSF7.



**One Section Models  
Equipped With One NEMA L14-20P Plug**

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

**NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.**

Continued product development may necessitate specification changes without notice

Part No. TR35784 (REV. 02-05-19)

**TRAULSEN**  
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The Traulsen logo features the brand name in a stylized, bold, serif font.

Project	Quantity	Item #
Model Specified		CSI Section 11400

## Roll-In Freezer Models For 66" High Racks/Self-Contained



Model Shown One section

## One, Two & Three Section Models, 32" Deep



Stainless Exterior  
& Interior

1-Section Solid Door Model  
2-Section Solid Door Model  
3-Section Solid Door Model

RIF132LUT-FHS\*  
RIF232LUT-FHS  
RIF332LUT-FHS



Stainless Exterior,  
Anodized Alumi-  
num Interior

1-Section Solid Door Model  
2-Section Solid Door Model  
3-Section Solid Door Model

AIF132LUT-FHS\*  
AIF232LUT-FHS  
AIF332LUT-FHS

The "L-Height" roll-in freezer models are all designed to offer convenient interior storage for 66" high racks. Each is supplied standard with such high quality features as easy to operate microprocessor controls, balanced refrigeration systems and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-448A
- Rear Biased Return Air Duct (2 & 3 Section Models Only)
- Full Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120 Degrees
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle(s)
- Standard Door Hinging: 132L = Right, 232L = Left/Right, 332L = Left/Right/Right (other hinging available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Accommodates Roll-In Racks Up To 66" High (provided by others)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Raised Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- Stainless Steel Interior Rack Guides & Threshold Ramp(s)
- 9' Cord & Plug Attached
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- Wire Shelf Package For Roll-In Models (includes three wire shelves per section)
- Additional Wire Shelves For Above
- Stainless Steel Shelf Package For Roll-In Models (includes three stainless steel shelves per section)
- Additional Stainless Steel Shelves For Above
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- Kool Klad Exterior Laminate Decor
- Remote Applications (see form TR35837 for more details)<sup>2</sup>
- Water Cooled Self-Contained Condenser Suitable for Connection To Glycol
- Recessed Installation
- Prison/Correctional Facilities Options



\*Noted models are **ENERGY STAR**® listed. **Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.**



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 22 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. The interior floor is constructed of stainless steel and insulated with ¾" of resilient cork. A readily attachable stainless steel ramp is provided to facilitate loading/unloading.

Doors are equipped with a heavy-duty, extruded wiper gasket for sealing to bottom ramp, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120 degrees. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and material simplify cleaning and increase overall gasket life. Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AIF132LUT	R/AIF232LUT	R/AIF332LUT
Net capacity cu. ft.	36.0 (1020 cu l)	74.3 (2105 cu l)	117.5 (3329 cu l)
Length - overall in.	35½ (90.2 cm)	68 (172.7 cm)	100½ (255.3 cm)
Depth - overall in.	35⅞ (90.3 cm)	35⅞ (90.3 cm)	35⅞ (90.3 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	63¼ (160.7 cm)	63¼ (160.7 cm)	63¼ (160.7 cm)
Clear door width in.	27⅞ (68.8 cm)	27⅞ (68.8 cm)	27⅞ (68.8 cm)
Clear door height in.	66⅞ (168.4 cm)	66⅞ (168.4 cm)	66⅞ (168.4 cm)
Height - overall in. <sup>3</sup>	83¼ (211.5 cm)	83¼ (211.5 cm)	83¼ (211.5 cm)
RIF Net Wt. lbs.	525 (238 kg)	820 (372 kg)	1130 (513 kg)
AIF Net Wt. lbs.	475 (215 kg)	720 (327 kg)	1090 (494 kg)
Rack Capacity - 66" High	1	2	3
ELECTRICAL DATA			
Voltage	115/60/1	208-230/115/60/1	208-230/115/60/1
Feed wires with Ground	3	4	4
Full load amperes	11.5	9.4	15.8
REFRIGERATION DATA			
Refrigerant	R-448A	R-448A	R-448A
Refrigerant Charge Amount	14 oz	23 oz	31 oz
BTU/HR H.P. <sup>1</sup>	2160 (½ HP)	4710 (1 HP)	5560 (2 x ¾ HP)

### NOTES

NOTE: Figures in parentheses reflect metric equivalents

1= Based on a 90°F ambient and -20°F evaporator.

2= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to form TR35837.

3= 12" Top clearance preferred for optimum performance and service access.



**1 Section Models Equipped With One NEMA 5-15P Plug**



**2 & 3 Section Models Equipped With One NEMA L14-20P Plug**

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

**NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.**

Continued product development may necessitate specification changes without notice

Part No. TR35769 (REV. 06-17-19)

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally finned, non-flammable R-448A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Rear biased return air duct (2 & 3 section models only) protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 0 to -5°F.

### Controller

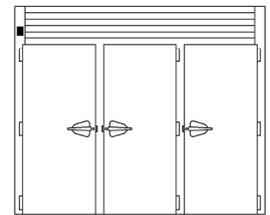
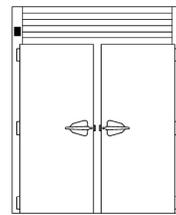
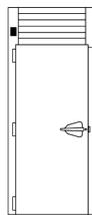
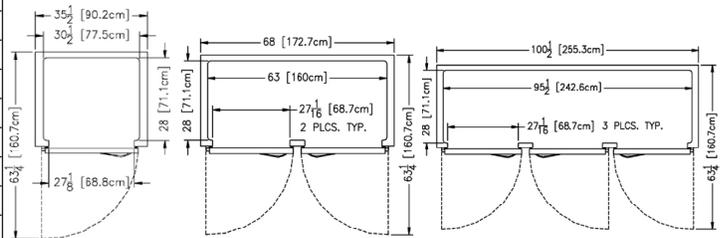
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

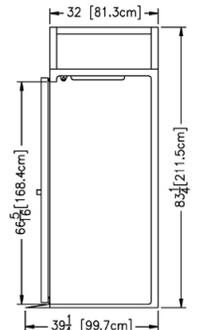
Readily removable, interior-mounted, stainless steel guides for rack are provided for protection. Maximum rack size with wheels inboard of frame is 27" wide by 29" deep by 66" high. Racks supplied by others.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Section - All Models



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Project	Quantity	Item #
Model Specified		CSI Section 11400

### Roll-In Freezer Models For 72" High Racks/Self-Contained



Model Shown One Section

### One & Two Section Models, 32" Deep



Stainless Exterior  
& Interior

1-Section Solid Door Model  
2-Section Solid Door Model

RIF132HUT-FHS  
RIF232HUT-FHS



Stainless Exterior,  
Anodized Alumi-  
num Interior

1-Section Solid Door Model  
2-Section Solid Door Model

AIF132HUT-FHS  
AIF232HUT-FHS

The "H-Height" roll-in freezer models are all designed to offer convenient interior storage for 72" high racks. Each is supplied standard with such high quality features as easy to operate microprocessor controls, balanced refrigeration systems and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

### Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-448A
- Rear Biased Return Air Duct (2 Section Models Only)
- Full Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle(s)
- Standard Door Hinging: 132H = Right, 232H = Left/Right (other hinging available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Accommodates Roll-In Racks Up To 72" High (provided by others)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Raised Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- Stainless Steel Interior Rack Guides & Threshold Ramp(s)
- 9' Cord & Plug Attached
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

### Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- Wire Shelf Package For Roll-In Models (includes three wire shelves per section)
- Additional Wire Shelves For Above
- Stainless Steel Shelf Package For Roll-In Models (includes three stainless steel shelves per section)
- Additional Stainless Steel Shelves For Above
- Export 220/50/1 Voltage
- Kool Klad Exterior Laminate Decor
- Recessed Installation
- Remote Applications (see form TR35837 for more details)<sup>2</sup>
- Water Cooled Self-Contained Condenser Suitable for Connection To Glycol
- Prison/Correctional Facilities Options



\* **Noted models are ENERGY STAR® listed. Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.**



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 22 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. The interior floor is constructed of stainless steel and insulated with ¾" of resilient cork. A readily attachable stainless steel ramp is provided to facilitate loading/unloading.

Doors are equipped with a heavy-duty, extruded wiper gasket for sealing to bottom ramp, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and material simplify cleaning and increase overall gasket life. Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AIF132HUT	R/AIF232HUT
Net capacity cu. ft.	39.0 (1104 cu l)	79.5 (2252 cu l)
Length - overall in.	35½ (90.2 cm)	68 (172.7 cm)
Depth - overall in.	35⅞ (90.3 cm)	35⅞ (90.3 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	63¼ (160.7 cm)	63¼ (160.7 cm)
Clear door width in.	27⅞ (68.8 cm)	27⅞ (68.8 cm)
Clear door height in.	72⅜ (183.4 cm)	72⅜ (183.4 cm)
Height - overall in. <sup>3</sup>	89⅞ (226.4 cm)	89⅞ (226.4 cm)
RIF Net Wt. lbs.	480 (218 kg)	785 (356 kg)
AIF Net Wt. lbs.	410 (186 kg)	685 (311 kg)
Rack Capacity - 72" High	1	2
ELECTRICAL DATA		
Voltage	115/60/1	208-230/115/60/1
Feed wires with Ground	3	4
Full load amperes	11.5	9.4
REFRIGERATION DATA		
Refrigerant	R-448A	R-448A
Refrigerant Charge Amount	14 oz	23 oz
BTU/HR H.P. <sup>1</sup>	2160 (½ HP)	4710 (1 HP)

#### NOTES

- NOTE: Figures in parentheses reflect metric equivalents  
 1= Based on a 90°F ambient and -10 °F evaporator.  
 2= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to form TR35837.  
 3= 12" Top clearance preferred for optimum performance and service access.



**1 Section Models Equipped With One NEMA 5-15P Plug**



**2 Section Models Equipped With One NEMA L14-20P Plug**

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-448A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Rear Biased return air duct (2 section models only) protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 0 to -5°F.

### Controller

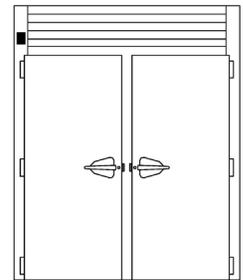
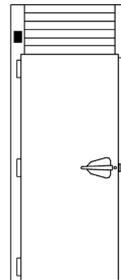
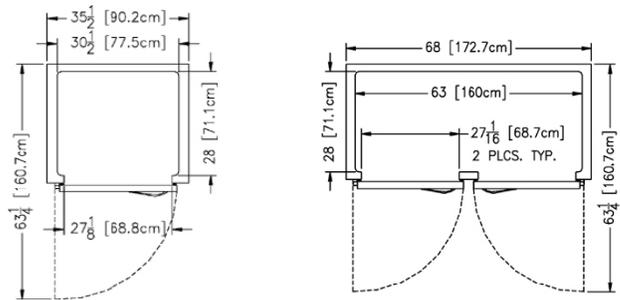
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

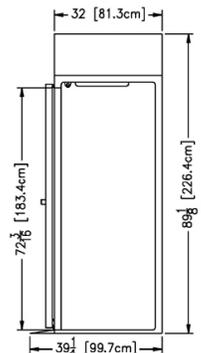
Readily removable, interior-mounted, stainless steel guides for rack are provided for protection. Maximum rack size with wheels inboard of frame is 27" wide by 29" deep by 72" high. Racks supplied by others.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Section - All Models



NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35770 (REV. 06-17-19)

**TRAUlsen**  
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 FAX-MKTG. 1 (817) 624-4302



Project	Quantity	Item #
Model Specified		CSI Section 11400

## Roll-In Refrigerator Models For 66" High Racks/Self-Contained



Model Shown Three Section

### One, Two & Three Section Models, 32" Deep



Stainless Exterior  
& Interior

- 1-Section Solid Door Model
- 2-Section Solid Door Model
- 3-Section Solid Door Model

- RRI132LUT-FHS\*
- RRI232LUT-FHS\*
- RRI332LUT-FHS



Stainless Exterior,  
Anodized Alumi-  
num Interior

- 1-Section Solid Door Model
- 2-Section Solid Door Model
- 3-Section Solid Door Model

- ARI132LUT-FHS\*
- ARI232LUT-FHS\*
- ARI332LUT-FHS

The "L-Height" roll-in refrigerator models are all designed to offer convenient interior storage for 66" high racks. Each is supplied standard with such high quality features as easy to operate microprocessor controls, balanced refrigeration systems and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle(s)
- Standard Door Hinging: 132L = Right, 232L = Left/Right, 332L = Left/Right/Right (other hinging available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Accommodates Roll-In Racks Up To 66" High (provided by others)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- Stainless Steel Interior Rack Guides & Threshold Ramp(s)
- 9' Cord & Plug Attached
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- Wire Shelf Package For Roll-In Models (includes three wire shelves per section)
- Additional Wire Shelves For Above
- Stainless Steel Shelf Package For Roll-In Models (includes three stainless steel shelves per section)
- Additional Stainless Steel Shelves For Above
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- Kool Klad Exterior Laminate Decor
- Clear Glass Door(s) In Place Of One Or More Solid Door(s)
- Remote Applications (see form TR35837 for more details)<sup>2</sup>
- Remote For Use With 20°F Glycol System
- Recessed Installation
- Prison/Correctional Facilities Options



\* Noted models are **ENERGY STAR**® listed. Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. The interior floor is constructed of stainless steel and insulated with ¾" of resilient cork. A readily attachable stainless steel ramp is provided to facilitate loading/unloading.

Doors are equipped with a heavy-duty, extruded wiper gasket for sealing to bottom ramp, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ARI132LUT	R/ARI232LUT	R/ARI332LUT
Net capacity cu. ft.	36.0 (1020 cu l)	74.3 (2105 cu l)	117.5 (3329 cu l)
Length - overall in.	35½ (90.2 cm)	68 (172.7 cm)	100½ (255.3 cm)
Depth - overall in.	35⅞ (90.3 cm)	35⅞ (90.3 cm)	35⅞ (90.3 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	63¼ (160.7 cm)	63¼ (160.7 cm)	63¼ (160.7 cm)
Clear door width in.	27½ (68.8 cm)	27½ (68.8 cm)	27½ (68.8 cm)
Clear door height in.	66⅞ (168.4 cm)	66⅞ (168.4 cm)	66⅞ (168.4 cm)
Height - overall in. <sup>3</sup>	83¼ (211.5 cm)	83¼ (211.5 cm)	83¼ (211.5 cm)
RRI Net Wt. lbs.	435 (197 kg)	700 (318 kg)	980 (445 kg)
ARI Net Wt. lbs.	365 (166 kg)	600 (272 kg)	840 (381 kg)
Rack Capacity - 66" High	1	2	3
ELECTRICAL DATA			
Voltage	115/60/1	115/60/1	115/60/1
Feed wires with Ground	3	3	3
Full load amperes	10.6	11.4	12.8
REFRIGERATION DATA			
Refrigerant	R-450A	R-450A	R-450A
Refrigerant Charge Amount 18 oz	27 oz	30 oz	
BTU/HR H.P. <sup>1</sup>	2220 (½ HP)	4200 (½ HP)	5120 (¾ HP)

### NOTES

- NOTE: Figures in parentheses reflect metric equivalents  
 1= Based on a 90°F ambient and 20°F evaporator.  
 2= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to form TR35837.  
 3= 12" Top clearance preferred for optimum performance and service access.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

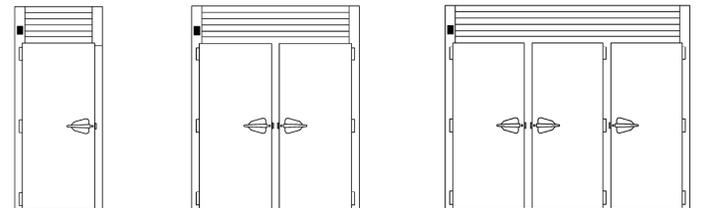
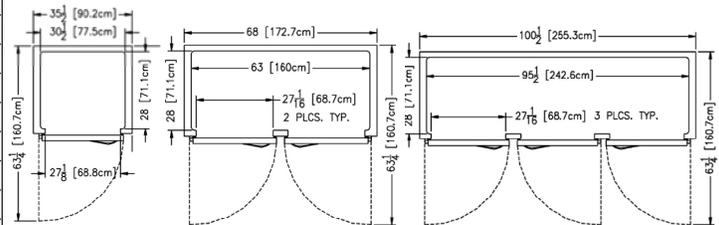
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Readily removable, interior-mounted, stainless steel guides for rack are provided for protection. Maximum rack size with wheels inboard of frame is 27" wide by 29" deep by 66" high. Racks supplied by others.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



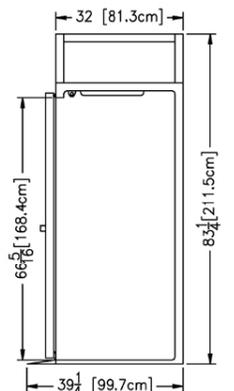
**1 & 2 Section Models Equipped With One NEMA 5-15P Plug**



**3 Section Models Equipped With One NEMA 5-20P Plug**

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

Section - All Models



NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35766 (REV. 01-21-19)

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**Traulsen**

Project	Quantity	Item #
Model Specified		CSI Section 11400

### Roll-In Refrigerator Models For 72" High Racks/Self-Contained



Model Shown Three Section

### One, Two & Three Section Models, 32" Deep



Stainless Exterior & Interior

- 1-Section Solid Door Model
- 2-Section Solid Door Model
- 3-Section Solid Door Model

- RRI132HUT-FHS
- RRI232HUT-FHS
- RRI332HUT-FHS



Stainless Exterior, Anodized Aluminum Interior

- 1-Section Solid Door Model
- 2-Section Solid Door Model
- 3-Section Solid Door Model

- ARI132HUT-FHS
- ARI232HUT-FHS
- ARI332HUT-FHS

The "H-Height" roll-in refrigerator models are all designed to offer convenient interior storage for 72" high racks. Each is supplied standard with such high quality features as easy to operate microprocessor controls, balanced refrigeration systems and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

### Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle(s)
- Standard Door Hinging: 132H = Right, 232H = Left/Right, 332H = Left/Right/Right (other hinging available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Accommodates Roll-In Racks Up To 72" High (provided by others)
- Automatic Non-Electric Condensate Evaporator
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- Stainless Steel Interior Rack Guides & Threshold Ramp(s)
- 9' Cord & Plug Attached
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

### Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- Wire Shelf Package For Roll-In Models (includes three wire shelves per section)
- Additional Wire Shelves For Above
- Stainless Steel Shelf Package For Roll-In Models (includes three stainless steel shelves per section)
- Additional Stainless Steel Shelves For Above
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- Kool Klad Exterior Laminate Decor
- Clear Glass Door(s) In Place Of One Or More Solid Door(s)
- Remote Applications (see form TR35837 for more details)<sup>2</sup>
- Remote For Use With 20°F Glycol System
- Recessed Installation
- Prison/Correctional Facilities Options



\* Noted models are ENERGY STAR® listed. Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_

**TRAUlsen**  
 4401 BLUE MOUND RD.  
 PHONE 1 (800) 825-8220  
 Website: [www.traulsen.com](http://www.traulsen.com)

FT. WORTH, TX 76106  
 FAX-MKTG. 1 (817) 624-4302



Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. The interior floor is constructed of stainless steel and insulated with ¾" of resilient cork. A readily attachable stainless steel ramp is provided to facilitate loading/unloading.

Doors are equipped with a heavy-duty, extruded wiper gasket for sealing to bottom ramp, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ARI132HUT	R/ARI232HUT	R/ARI332HUT
Net capacity cu. ft.	39.0 (1104 cu l)	79.5 (2252 cu l)	120.5 (3414 cu l)
Length - overall in.	35½ (90.2 cm)	68 (172.7 cm)	100½ (255.3 cm)
Depth - overall in.	35⅝ (90.3 cm)	35⅝ (90.3 cm)	35⅝ (90.3 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	63¼ (160.7 cm)	63¼ (160.7 cm)	63¼ (160.7 cm)
Clear door width in.	27⅞ (68.8 cm)	27⅞ (68.8 cm)	27⅞ (68.8 cm)
Clear door height in.	72⅝ (183.4 cm)	72⅝ (183.4 cm)	72⅝ (183.4 cm)
Height - overall in. <sup>3</sup>	89⅞ (226.4 cm)	89⅞ (226.4 cm)	89⅞ (226.4 cm)
RRI Net Wt. lbs.	480 (218 kg)	785 (356 kg)	1075 (488 kg)
ARI Net Wt. lbs.	410 (186 kg)	685 (311 kg)	1000 (454 kg)
Rack Capacity - 72" High	1	2	3
<b>ELECTRICAL DATA</b>			
Voltage	115/60/1	115/60/1	115/60/1
Feed wires with Ground	3	3	3
Full load amperes	10.6	11.4	12.8
<b>REFRIGERATION DATA</b>			
Refrigerant	R-450A	R-450A	R-450A
Refrigerant Charge Amount 18 oz		27 oz	30 oz
BTU/HR H.P. <sup>1</sup>	2220 (½ HP)	4200 (½ HP)	5120 (¾ HP)

### NOTES

- NOTE: Figures in parentheses reflect metric equivalents  
 1= Based on a 90°F ambient and 20°F evaporator.  
 2= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to form TR35837.  
 3= 12" Top clearance preferred for optimum performance and service access.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

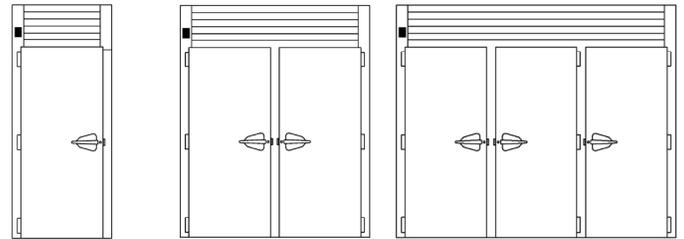
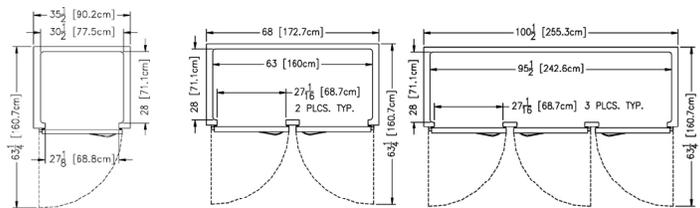
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Readily removable, interior-mounted, stainless steel guides for rack are provided for protection. Maximum rack size with wheels inboard of frame is 27" wide by 29" deep by 72" high. Racks supplied by others.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.

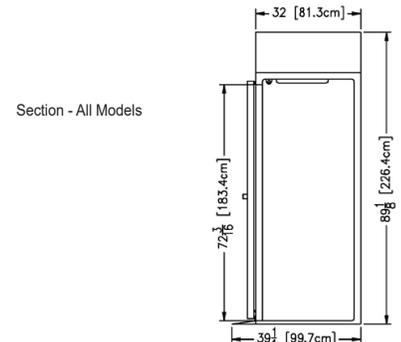


**1 & 2 Section Models Equipped With One NEMA 5-15P Plug**



**3 Section Models Equipped With One NEMA 5-20P Plug**

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.



NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35768 (REV. 01-21-19)

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Roll-Thru Refrigerator Models For 66" High Racks/Self-Contained



Model Shown Three Section

### One, Two & Three Section Models, 32" Deep



Stainless Exterior  
& Interior

- 1-Section Solid Door Model
- 2-Section Solid Door Model
- 3-Section Solid Door Model

- RR1132LPUT-FHS\*
- RR1232LPUT-FHS\*
- RR1332LPUT-FHS



Stainless Exterior,  
Anodized Alumi-  
num Interior

- 1-Section Solid Door Model
- 2-Section Solid Door Model
- 3-Section Solid Door Model

- ARI132LPUT-FHS\*
- ARI232LPUT-FHS\*
- ARI332LPUT-FHS

The "L-Height" roll-thru refrigerator models are all designed to offer convenient interior storage for 66" high racks. Each is supplied standard with such high quality features as easy to operate microprocessor controls, balanced refrigeration systems and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle(s)
- Standard Door Hinging F & R: 132LP = Right, 232LP = Left/Right, 332LP = Left/Right/Right (other hinging available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Accommodates Roll-In Racks Up To 66" High (provided by others)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- Stainless Steel Interior Rack Guides & Threshold Ramp(s)
- 9' Cord & Plug Attached
- ThreeYear Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Re-Hinging Feature For Door(s)
- Wire Shelf Package For Roll-Thru Models (includes three wire shelves per section)
- Additional Wire Shelves For Above
- Stainless Steel Shelf Package For Roll-Thru Models (includes three stainless steel shelves per section)
- Additional Stainless Steel Shelves For Above
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- Glass Door(s) In Place Of One Or More Stainless Steel Door(s) (available on one or both sides, please note model number suffix will change to -FHG, n/a on three section models)
- Kool Klad Exterior Laminate Decor
- Remote Applications (see form TR35837 for more details)<sup>2</sup>
- Remote For Use With 20°F Glycol System
- Recessed Installation
- Prison/Correctional Facilities Options



\* **Noted models are ENERGY STAR® listed. Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.**



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_



**TRAUlsen**  
4401 BLUE MOUND RD.  
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Website: [www.traulsen.com](http://www.traulsen.com)

FT. WORTH, TX 76106  
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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top and bottom are constructed of heavy gauge galvanized steel. The interior floor is constructed of stainless steel and insulated with ¾" of resilient cork. Readily attachable stainless steel ramps are provided to facilitate loading/unloading.

Doors are equipped with a heavy-duty, extruded wiper gasket for sealing to bottom ramp, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ARI132LPUT	R/ARI232LPUT	R/ARI332LPUT
Net capacity cu. ft.	38.8 (1099 cu l)	80.2 (2272 cu l)	117.5 (3329 cu l)
Length - overall in.	35½ (90.2 cm)	68 (172.7 cm)	100½ (255.3 cm)
Depth - overall in.	39½ (99.4 cm)	39½ (99.4 cm)	39½ (99.4 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)	32 (81.3 cm)
Depth - doors open 90° in.	94½ (240.0 cm)	94½ (240.0 cm)	94½ (240.0 cm)
Clear door width in.	27½ (68.8 cm)	27½ (68.8 cm)	27½ (68.8 cm)
Clear door height in.	66⅝ (168.4 cm)	66⅝ (168.4 cm)	66⅝ (168.4 cm)
Height - overall in <sup>3</sup>	83¼ (211.5 cm)	83¼ (211.5 cm)	83¼ (211.5 cm)
RRI Net Wt. lbs.	490 (222 kg)	775 (352 kg)	1050 (476 kg)
ARI Net Wt. lbs.	415 (188 kg)	670 (304 kg)	915 (415 kg)
Rack Capacity - 66" High	1	2	3
ELECTRICAL DATA			
Voltage	115/60/1	115/60/1	115/60/1
Feed wires with Ground	3	3	3
Full load amperes	11.6	13.4	15.2
REFRIGERATION DATA			
Refrigerant	R-450A	R-450A	R-450A
Refrigerant Charge Amount	18oz	27 oz	30 oz
BTU/HR H.P. <sup>1</sup>	2220 (¼ HP)	4200 (½ HP)	5120 (¾ HP)

#### NOTES

- NOTE: Figures in parentheses reflect metric equivalents  
 1= Based on a 90°F ambient and 20°F evaporator.  
 2= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to form TR35837.  
 3= 12" Top clearance preferred for optimum performance and service access.

 1 Section Models Equipped With One NEMA 5-15P Plug

 2 & 3 Section Models Equipped With One NEMA 5-20P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

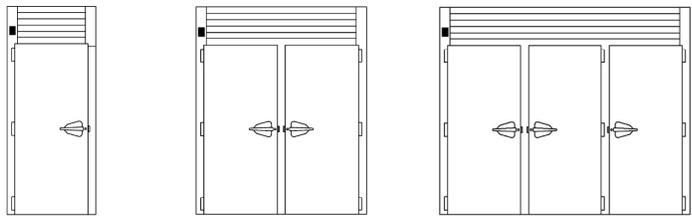
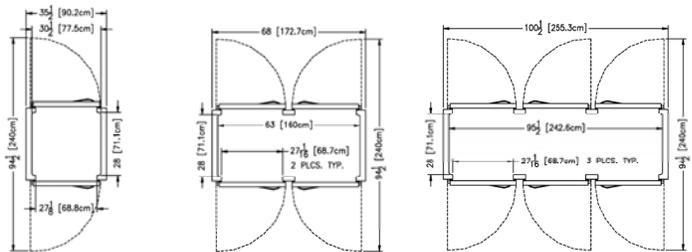
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

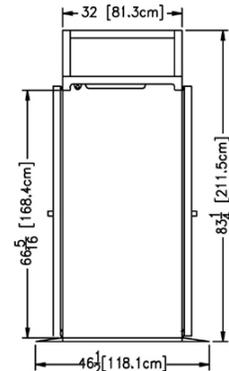
Readily removable, interior-mounted, stainless steel guides for rack are provided for protection. Maximum rack size with wheels inboard of frame is 27" wide by 29" deep by 66" high. Racks supplied by others.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Section - All Models



NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35767 (REV. 01-21-19)

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Project	Quantity	Item #
Model Specified		CSI Section 11400

### Slim Line Reach-In Refrigerator-Freezer Models Self-Contained



Model Shown One Section  
(shown with optional casters)

### One & Two Section Models, 32" Deep



2-Section Full Length Door Model	RDT232DUT-FHS
1-Section Half Length Door Model	RDT132KUT-HHS
2-Section Half Length Door Model	RDT232DUT-HHS



2-Section Full Length Door Model	ADT232DUT-FHS
1-Section Half Length Door Model	ADT132KUT-HHS
2-Section Half Length Door Model	ADT232DUT-HHS

The slim line reach-in refrigerator/freezer models are all designed to offer maximum interior storage capacity. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

### Standard Product Features

- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- INTELA-TRAUL® Microprocessor Control System
- Balanced, Self-Contained Dual Refrigeration Systems Using R-450A & R-404A Refrigerants
- Full or Half Length Stainless Steel Doors With Locks (full-length doors n/a on one-section models)
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging: 132K = Right, 232D = Left/Right (other hinging not available for 2-section models)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Adjustable Wire Shelves (installed at the factory)
- Automatic Non-Electric Condensate Evaporator (2 section models only)
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

### Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, Adjustable To 2" O.C.
- Additional Wire Shelves
- Stainless Steel Shelves
- EZ-Open Foot Pedal (full height doors only)
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" High Casters In Lieu of Legs
- Set of Four (4) 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Remote Applications (see spec sheet TR35837 for details)
- Clear Glass Door(s) In Place Of One Or More Refrigerator Section Door(s)
- Water Cooled Self-Contained Condenser Suitable For Connection To Glycol



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.

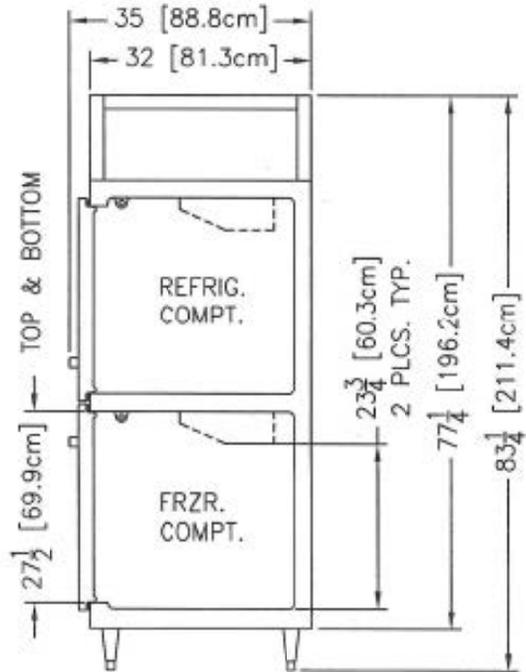
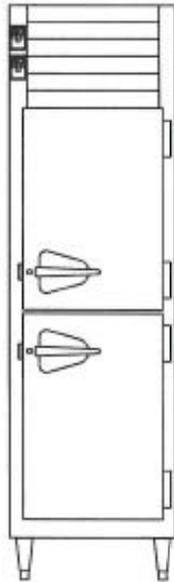
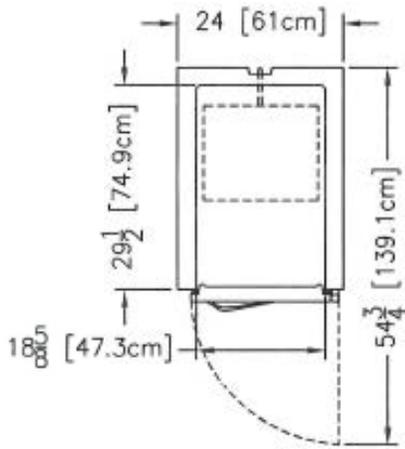


Approval: \_\_\_\_\_



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## "W-Width" Hinged Glass Door Reach-In Refrigerators/Self-Contained



Model Shown Two Section  
(shown with optional casters)

### One, Two & Three Section Models, 32" Deep



Stainless Exterior  
& Interior

1-Section Full Length Door Model	RHT132WUT-FHG*
2-Section Full Length Door Model	RHT232WUT-FHG*
3-Section Full Length Door Model	RHT332WUT-FHG
1-Section Half Length Door Model	RHT132WUT-HHG*
2-Section Half Length Door Model	RHT232WUT-HHG*
3-Section Half Length Door Model	RHT332WUT-HHG



Stainless Exterior,  
Anodized Aluminum Interior

1-Section Full Length Door Model	AHT132WUT-FHG*
2-Section Full Length Door Model	AHT232WUT-FHG*
3-Section Full Length Door Model	AHT332WUT-FHG
1-Section Half Length Door Model	AHT132WUT-HHG*
2-Section Half Length Door Model	AHT232WUT-HHG*
3-Section Half Length Door Model	AHT332WUT-HHG

These "W-Width" reach-in refrigerator models are equipped with hinged glass doors in order to maximize product visibility. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

## Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full or Half Length Hinged Glass Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Stainless Steel Vertical Door Handle(s)
- Standard Door Hinging: 132W = Right, 232W = Left/Right, 332W = Left/Right/Right (other hings available)
- LED Lights With Exterior Switch
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Controllable Anti-Condensate Door Perimeter Heaters
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

## Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, Adjustable To 2" O.C.
- No. 4 Type Tray Slides To Accommodate (1) 18" x 26" Sheet Pans (chrome rod type, equips 1/2 section)
- Universal Type Tray Slides To Accommodate Either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, or (2) 12" x 20" Steam Table Pans, Adjustable To 4" O.C.
- Additional Wire Shelves
- EZ-Change Interiors (#1, universals, universal heavy duty tray slides and shelves)
- 208/115/60/1 Voltage In Lieu Of Standard 115/60/1
- Set of Four (4) 6" High Casters or 4-5/8" In Lieu of Legs
- Remote Applications (see spec sheet TR35837 for details)<sup>4</sup>



\* Noted models are ENERGY STAR® listed. Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides and louver assembly are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior is constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. An external switch is provided to activate the interior LED lighting.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

The cabinet is insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AHT132WUT	R/AHT232WUT	R/AHT332WUT
Net capacity cu. ft.	24.2 (686 cu l)	51.6 (1462 cu l)	79.0 (2238 cu l)
Length - overall in.	29 <sup>7</sup> / <sub>8</sub> (75.9 cm)	58 (147.3 cm)	86 <sup>1</sup> / <sub>8</sub> (218.8 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)	35 (88.8 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	57 <sup>1</sup> / <sub>16</sub> (146.5 cm)	57 <sup>1</sup> / <sub>16</sub> (146.5 cm)	57 <sup>1</sup> / <sub>16</sub> (146.5 cm)
Clear door width in.	21 <sup>1</sup> / <sub>8</sub> (53.6 cm)	21 <sup>1</sup> / <sub>8</sub> (53.6 cm)	21 <sup>1</sup> / <sub>8</sub> (53.6 cm)
Clear half-door height in.	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)
Clear full-door height in.	57 <sup>3</sup> / <sub>8</sub> (146.3 cm)	57 <sup>3</sup> / <sub>8</sub> (146.3 cm)	57 <sup>3</sup> / <sub>8</sub> (146.3 cm)
Height - overall on 6" legs <sup>5</sup>	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)
No. Standard Shelves	3	6	9
Shelf area sq. ft. <sup>1</sup>	18.8 (1.75 sq m)	37.6 (3.49 sq m)	56.4 (5.23 sq m)
RHT Net Wt. lbs.	380 (172 kg)	630 (286 kg)	880 (399 kg)
AHT Net Wt. lbs.	330 (150 kg)	550 (249 kg)	760 (345 kg)
<b>ELECTRICAL DATA</b>			
Voltage	115/60/1	115/60/1	115/60/1
Feed wires with Ground	3	3	3
Full load amperes <sup>2</sup>	8.0	10.4	11.4
<b>REFRIGERATION DATA</b>			
Refrigerant	R-450A	R-450A	R-450A
Refrigerant Charge Amount	18	27	30
BTU/HR H.P. <sup>3</sup>	2220 (1/3 HP)	4200 (1/2 HP)	5120 (3/4 HP)

### NOTES

NOTE: Figures in parentheses reflect metric equivalents

- Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.
- Amp figure shown as supplied with standard LED lighting
- Based on a 90°F ambient and 20°F evaporator.
- For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to spec sheet TR35837.
- 12" Top clearance preferred for optimum performance and service access.

 **1 Section Models**  
Equipped With One  
NEMA 5-15 P Plug

 **2 & 3 Section Models**  
Equipped With One  
NEMA 5-20 P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

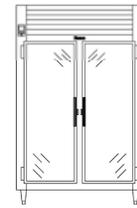
Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed.

### Warranties

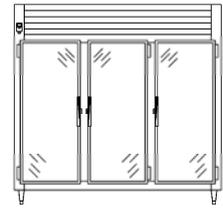
Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



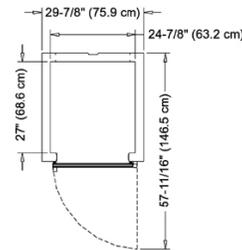
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R/AHT132WUT



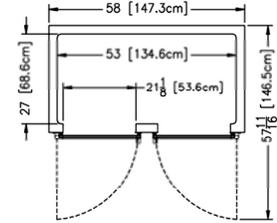
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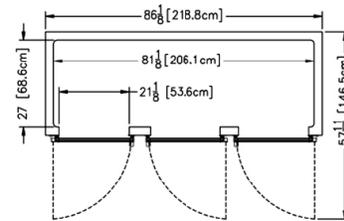
Elevation -  
R/AHT332WUT



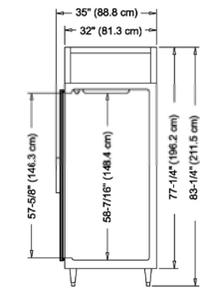
Plan - R/AHT132WUT



Plan - R/AHT232WUT



Plan - R/AHT332WUT



Section - All Models

NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

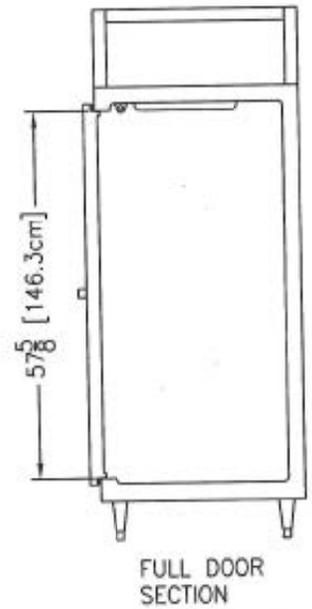
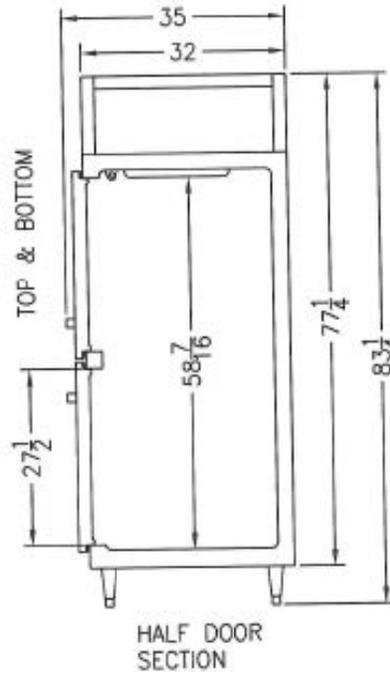
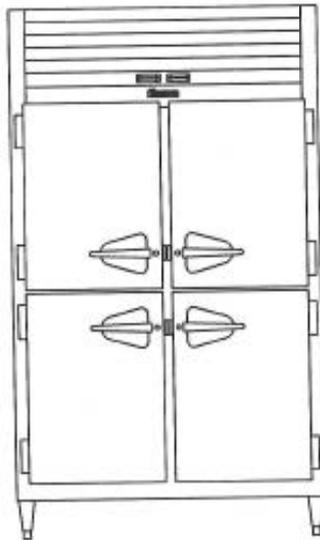
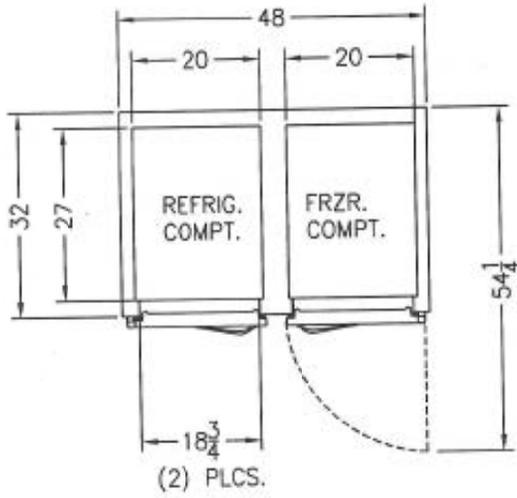
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Part No. TR35827 (REV. 01-21-19)

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profil and Santopren® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ADT132KUT	R/ADT232DUT
Net capacity total cu. ft.	17.1 (484.2 l)	38.0 (1076 l)
Net capacity refriger. cu. ft.	8.5 (241.5 l)	23.5 (665 l)
Net capacity freezer cu. ft.	8.5 (241.5 l)	14.5 (411 l)
Length - overall in.	24 (61.0 cm)	48 (121.9 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	54¼ (139.1 cm)	54¼ (139.1 cm)
Clear door width in.	18½ (47.3 cm)	18½ (47.3 cm)
Clear half-door height in.	27½ (69.9 cm)	27½ (69.9 cm)
Clear full-door height in.	n/a	57½ (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83¼ (211.5 cm)	83¼ (211.5 cm)
No. Standard Shelves	2	6
Shelf area total sq. ft. <sup>1</sup>	28.0 (2.6 sq m)	37.6 (3.49 sq m)
Shelf area refriger. sq. ft. <sup>1</sup>	7.1 (.7 sq m)	14.2 (1.3 sq m)
Shelf area freezer sq. ft. <sup>1</sup>	7.1 (.7 sq m)	14.2 (1.3 sq m)
RDT Net Wt. lbs. <sup>3</sup>	455 (206 kg)	665 (302 kg)
ADT Net Wt. lbs. <sup>3</sup>	405 (184 kg)	585 (265 kg)
<b>ELECTRICAL DATA</b>		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes	10.7	12.6
<b>REFRIGERATION DATA</b>		
Refrigerant - Refrigerator	R-450A	R-450A
Refrigerant Charge	11 oz	11 oz
Refrigerant - Freezer	R-404A	R-404A
Refrigerant Charge Amount	12 oz	14 oz
BTU/HR H.P. - Refrigerator <sup>2</sup>	1130 (½ HP)	1130 (½ HP)
BTU/HR H.P. - Freezer <sup>2</sup>	1440 (½ HP)	1440 (½ HP)

### NOTES

NOTE: Figures in parentheses reflect metric equivalents.

- 1= Area of standard shelf compliment only, does not include storage area of additional shelves or available on cabinet bottom.  
 2= Based on a 90°F ambient and 20°F evaporator for the refrigerated section and a 90°F ambient and -20°F evaporator for the freezer section.  
 3= For approximate remote weights deduct 40 lbs. from respective net or gross weight. For other information on remote models, please refer to spec sheet TR35837.  
 4= 12" Top clearance preferred for optimum performance and service access.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A and R-404A refrigerants is conveniently located behind the one piece louver assembly. Two section models feature an easy to clean front facing condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. One section models feature an interior mounted coil.

Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation

A 9' cord and plug is provided standard. Standard operating temperatures are 34 to 38°F for the refrigerator compartment and 0 to -5°F for the freezer compartment.

### Controller

The easy to use water resistant INTELA-TRAUL® microprocessor control system is supplied standard. It includes a 3-Digit LED Display and Fahrenheit or Celsius Temperature Scale Display Capability. In addition it includes audio/visual alarms for: Hi/Lo Cabinet Temperature, Door Open, Clean Condenser, Evaporator Coil and Discharge Line Sensor Failures, and Power Supply Interruption. A separate control is provided for both the refrigerator and freezer compartments.

### Interior

Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins (one section models are supplied standard with two wire shelves). Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Interior arrangements are installed at the factory.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



1 Sections Models  
Equipped With One NEMA 5-15 P Plug



2 Section Models  
Equipped With One NEMA 5-20 P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice.

Part No. TR35781 (REV. 12-17-18)

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Project	Quantity	Item #
Model Specified		CSI Section 11400

### "W-Width" Reach-In Refrigerator Models/ Self-Contained



Model Shown Two Section  
(shown with optional casters)

#### One, Two & Three Section Models, 32" Deep



1-Section Full Length Door Model	RHT132WUT-FHS*
2-Section Full Length Door Model	RHT232WUT-FHS*
3-Section Full Length Door Model	RHT332WUT-FHS
1-Section Half Length Door Model	RHT132WUT-HHS*
2-Section Half Length Door Model	RHT232WUT-HHS*
3-Section Half Length Door Model	RHT332WUT-HHS



1-Section Full Length Door Model	AHT132WUT-FHS*
2-Section Full Length Door Model	AHT232WUT-FHS*
3-Section Full Length Door Model	AHT332WUT-FHS
1-Section Half Length Door Model	AHT132WUT-HHS*
2-Section Half Length Door Model	AHT232WUT-HHS*
3-Section Half Length Door Model	AHT332WUT-HHS

The "W-Width" reach-in refrigerator models are all designed to offer maximum interior storage capacity. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

### Standard Product Features

- Traulsen's Smart Control With LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging: 132W = Right, 232W = Left/Right, 332W = Left/Right/Right (other hingsings available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

### Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Pans
- No. 4 Type Tray Slides To Accommodate (1) 18" x 26" Sheet Pans (chrome rod type, equips 1/2 section)
- Universal Type Tray Slides To Accommodate Either (1) 18" x 26" or (2) 14" x 18", or (2) 12" x 20" Pans
- Additional Wire Shelves or Optional Stainless Steel Shelves
- EZ-Change Interiors (#1, universals, universal heavy duty tray slides and shelves)
- EZ-Open Foot Pedal (full height doors only)
- Locking Hasps (padlocks supplied by others)
- Optional 220/50/1 or 208/115/60/1 Voltages
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 4-5/8" or 6" High Casters In Lieu of Legs
- Other Support Options: 4-1/2" High Base or 6" High Kickplate
- Remote Applications (see form TR35837 for more details)<sup>3</sup>
- Remote For Use With 20°F Glycol System
- Clear Glass Door(s) In Place Of One Or More Solid Door(s)



\* **Noted models are ENERGY STAR® listed. Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.**



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AHT132WUT	R/AHT232WUT	R/AHT332WUT
Net capacity cu. ft.	24.2 (686 cu l)	51.6 (1462 cu l)	79.0 (2238 cu l)
Length - overall in.	29 <sup>7</sup> / <sub>8</sub> (75.9 cm)	58 (147.3 cm)	86 <sup>1</sup> / <sub>2</sub> (218.8 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)	35 (88.8 cm)
Depth - less handle in.	33 <sup>3</sup> / <sub>4</sub> (84.4 cm)	33 <sup>3</sup> / <sub>4</sub> (84.4 cm)	33 <sup>3</sup> / <sub>4</sub> (84.4 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in. (cm)	57 <sup>1</sup> / <sub>16</sub> (146.5 cm)	57 <sup>1</sup> / <sub>16</sub> (146.5 cm)	57 <sup>1</sup> / <sub>16</sub> (146.5 cm)
Clear door width in.	21 <sup>1</sup> / <sub>2</sub> (53.6 cm)	21 <sup>1</sup> / <sub>2</sub> (53.6 cm)	21 <sup>1</sup> / <sub>2</sub> (53.6 cm)
Clear half-door height in.	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)	27 <sup>1</sup> / <sub>2</sub> (69.9 cm)
Clear full-door height in.	57 <sup>5</sup> / <sub>8</sub> (146.3 cm)	57 <sup>5</sup> / <sub>8</sub> (146.3 cm)	57 <sup>5</sup> / <sub>8</sub> (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)	83 <sup>3</sup> / <sub>4</sub> (211.5 cm)
RHT Net Wt. lbs. <sup>1</sup>	380 (172 kg)	630 (286 kg)	880 (399 kg)
AHT Net Wt. lbs. <sup>1</sup>	330 (150 kg)	550 (249 kg)	760 (345 kg)
No. Standard Shelves	3	6	9
Shelf area sq. ft. <sup>2</sup>	18.8 (1.75 sq m)	37.6 (3.49 sq m)	56.4 (5.23 sq m)
ELECTRICAL DATA			
Voltage	115/60/1	115/60/1	115/60/1
Feed wires with Ground	3	3	3
Full load amperes	7.0	8.2	11.8
REFRIGERATION DATA			
Refrigerant	R-450A	R-450A	R-450A
Refrigerant Charge Amount	18 oz	27 oz	30 oz
BTU/HR H.P. <sup>3</sup>	2240 (1/3 HP)	4610 (2/3 HP)	4900 (3/4 HP)

### NOTES

- NOTE: Figures in parentheses reflect metric equivalents
- For shipping weights and dimensions please refer to form TR35875.
  - Area of standard shelf complement only, does not include storage area of additional shelves or available on cabinet bottom.
  - Based on a 90°F ambient and 20°F evaporator. For information on remote models, please refer to form TR35837.
  - 12" Top Clearance preferred for optimum performance and service access.



### Equipped With One NEMA 5-15 P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

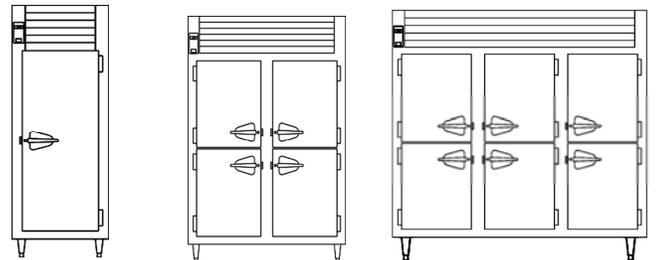
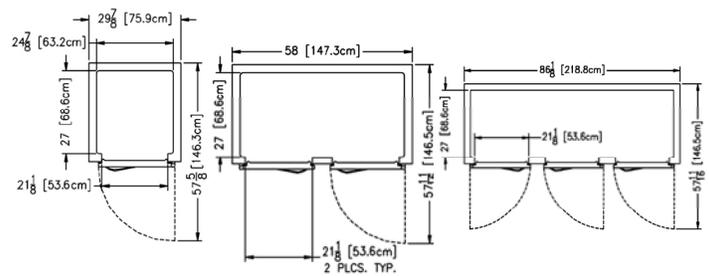
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

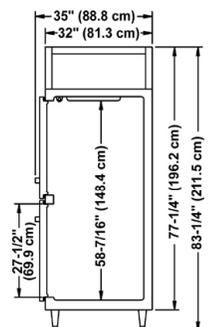
Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Section - All Models



NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.

Continued product development may necessitate specification changes without notice

Part No. TR35755 (REV. 01-21-19)

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**Traulsen**

Project	Quantity	Item #
Model Specified		CSI Section 11400

### "W-Width" Reach-In Refrigerator-Freezer Models/Self-Contained



Model Shown One Section  
(shown with optional casters)

### One, Two & Three Section Models, 32" Deep



Stainless Exterior & Interior

1-Section Half Length Door Model	RDT132WUT-HHS
2-Section Full Length Door Model	RDT232WUT-FHS
2-Section Half Length Door Model	RDT232WUT-HHS
3-Section Full Length Door Model	RDT332WUT-FHS
3-Section Half Length Door Model	RDT332WUT-HHS



Stainless Exterior, Anodized Aluminum Interior

1-Section Half Length Door Model	ADT132WUT-HHS
2-Section Full Length Door Model	ADT232WUT-FHS
2-Section Half Length Door Model	ADT232WUT-HHS
3-Section Full Length Door Model	ADT332WUT-FHS
3-Section Half Length Door Model	ADT332WUT-HHS

The "W-Width" reach-in refrigerator/freezer models are all designed to offer maximum interior storage capacity. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

### Standard Product Features

- Traulsen's Smart Control With LED Display
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration Systems
- Rear Biased Return Air Duct (2 & 3 section models only)
- Full or Half Length Stainless Steel Doors With Locks (full-length doors n/a on one-section models)
- Self-Closing Doors With Stay Open Feature At 120 Degrees
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging: 132W = Right, 232W = Left/Right, 332W = Left/Right/Right (other hingsings available)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Adjustable Wire Shelves (installed at the factory)
- Automatic Non-Electric Condensate Evaporator (2 & 3 section models only)
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Raised Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

### Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- Re-Hinging Feature For Door(s)
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, Adjustable To 2" O.C.
- No. 4 Type Tray Slides To Accommodate (1) 18" x 26" Sheet Pans (chrome rod type, equips 1/2 section) for 2-section and 3-section models only
- Universal Type Tray Slides To Accommodate Either (1) 18" x 26" or (2) 14" x 18" Sheet Pans, or (2) 12" x 20" Steam Table Pans, Adjustable To 4" O.C.
- Additional Wire Shelves
- EZ-Change Interiors (#1, universals, universal heavy duty tray slides and shelves)
- EZ-Open Foot Pedal (full height doors only)
- Locking Hasps (padlocks supplied by others)
- Export 220/50/1 Voltage
- 208/115/60/1 Voltage In Lieu Of Standard 115/60/1
- Stainless Steel Shelves
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 6" or 4-5/8" High Casters In Lieu of Legs
- 4-1/2" High Stainless Steel Base In Lieu of Legs
- 6" High Stainless Steel Kickplate (for use with standard legs)
- Prison/Correctional Facilities Options
- Clear Glass Door(s) In Place Of One Or More Refrigerator Section Door(s)
- Water Cooled Self-Contained Condenser Suitable For Connection To Glycol
- Wine Temperature Application

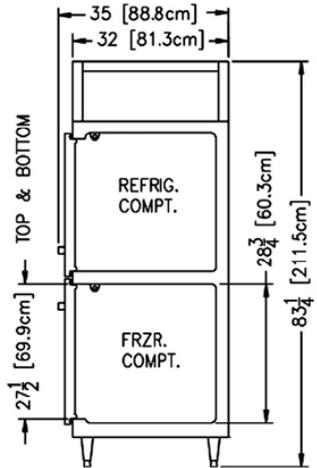
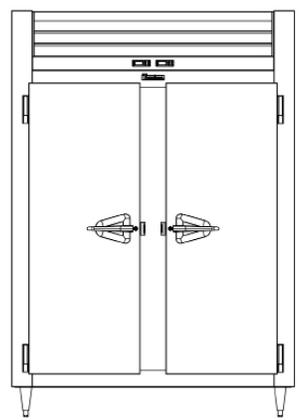
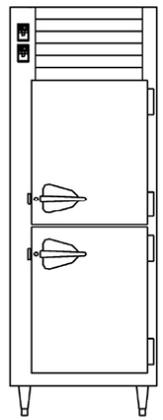
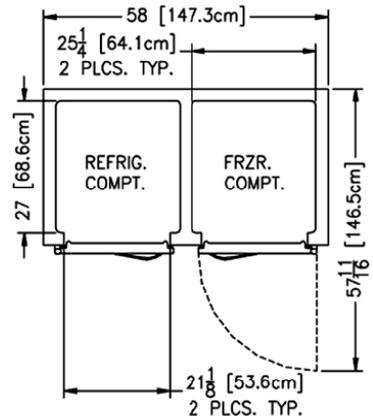
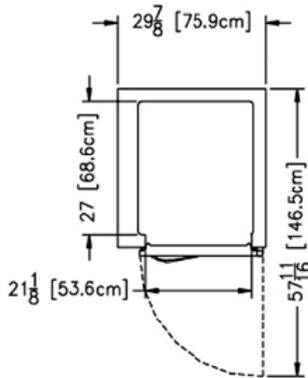


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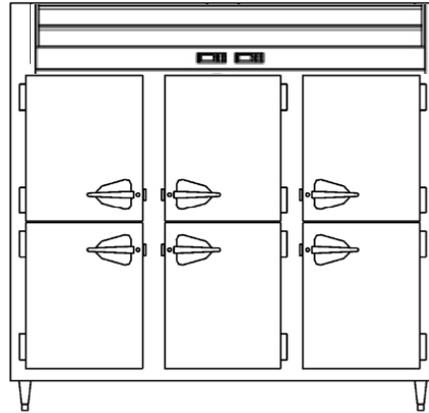
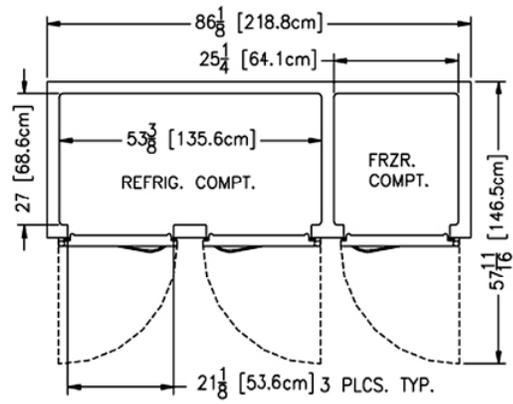
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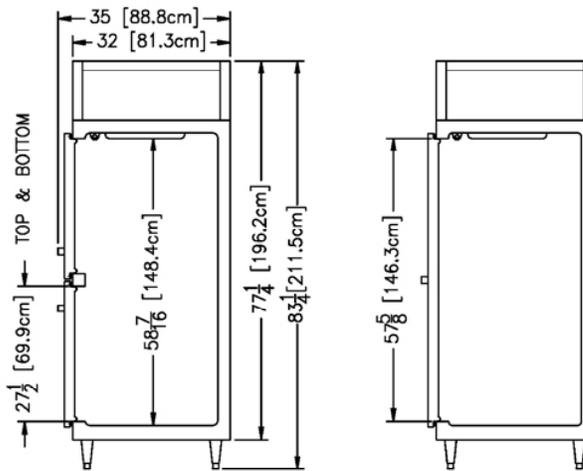
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Section View  
2 & 3 Section



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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, sides, louver assembly and doors are constructed of 22 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket-protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120 Degrees. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/ADT132WUT	R/ADT232WUT	R/ADT332WUT
Net capacity total cu. ft.	21.6 (612 cu l)	45.0 (1275 cu l)	69.3 (1962 cu l)
Net capacity refriger. cu. ft.	10.8 (306 cu l)	23.2 (657 cu l)	47.5 (1346 cu l)
Net capacity freezer cu. ft.	10.8 (306 cu l)	21.8 (657 cu l)	21.8 (657 cu l)
Length - overall in.	29 $\frac{7}{8}$ (75.9 cm)	58 (147.3 cm)	86 $\frac{5}{8}$ (218.8 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)	35 (88.8 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in. 57 $\frac{11}{16}$ (146.5 cm)	57 $\frac{11}{16}$ (146.5 cm)		57 $\frac{11}{16}$ (146.5 cm)
Clear door width in.	21 $\frac{1}{8}$ (53.6 cm)	21 $\frac{1}{8}$ (53.6 cm)	21 $\frac{1}{8}$ (53.6 cm)
Clear half-door height in.	27 $\frac{1}{2}$ (69.9 cm)	27 $\frac{1}{2}$ (69.9 cm)	27 $\frac{1}{2}$ (69.9 cm)
Clear full-door height in.	n/a	57 $\frac{7}{8}$ (146.3 cm)	57 $\frac{7}{8}$ (146.3 cm)
Height - overall on 6" legs <sup>5</sup>	83 $\frac{1}{4}$ (211.5 cm)	83 $\frac{1}{4}$ (211.5 cm)	83 $\frac{1}{4}$ (211.5 cm)
No. Standard Shelves	2	6	9
Shelf area total sq. ft. <sup>1</sup>	7.5 (.7 sq m)	25.2 (2.4 sq m)	37.8 (3.6 sq m)
Shelf area refriger. sq. ft. <sup>1</sup>	3.75 (.35 sq m)	12.6 (1.2 sq m)	25.2 (2.4 sq m)
Shelf area freezer sq. ft. <sup>1</sup>	3.75 (.35 sq m)	12.6 (1.2 sq m)	12.6 (1.2 sq m)
RDT Net Wt. lbs.	360 (163 kg)	705 (320 kg)	1030 (467 kg)
ADT Net Wt. lbs.	310 (140 kg)	615 (279 kg)	900 (408 kg)
<b>ELECTRICAL DATA</b>			
Voltage	115/60/1	115/60/1	115/60/1
Feed wires with Ground	3	3	3
Full load amperes	10.3	16.0	21.6
<b>REFRIGERATION DATA<sup>2</sup></b>			
Refrigerant - Refrigerator	R-450A	R-450A	R-450A
Refrigerant Charge Amount	12 oz	13 oz	14 oz
Refrigerant - Freezer	R-448A	R-448A	R-448A
Refrigerant Charge Amount	12 oz	13 oz	14 oz
BTU/HR H.P. - Refrigerator	1845 (1/2 HP)	2240 (1/3 HP) <sup>3</sup>	4200 (1/2 HP) <sup>3</sup>
BTU/HR H.P. - Freezer	1930 (1/2 HP) <sup>4</sup>	1930 (1/2 HP) <sup>3</sup>	2160 (1/2 HP) <sup>3</sup>

### NOTES

NOTE: Figures in parentheses reflect metric equivalents

- Area of standard shelf complement only, does not include storage area of additional shelves or available on each compartment bottom.
- Note that single section models employ one compressor and two evaporator coils, data listed reflects total refrigerator/freezer system.
- Based on a 90°F ambient and 20°F evaporator for the refrigerated section and a 90°F ambient and -20°F evaporator for the freezer section.
- Based on a 90°F ambient and -20°F evaporator.
- 12" Top clearance preferred for optimum performance and service access.

### Refrigeration System - One Section Models

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A and R-448A refrigerants is conveniently located behind the one piece louver assembly. It features an easy to clean front facing condenser, thermostatic expansion valve, air-cooled hermetic compressor, and large, high humidity evaporator coils located outside the food zone.

A 9' cord and plug is provided standard. Standard operating temperatures are 34 to 38°F for the refrigerator compartment and 0 to -5°F for the freezer compartment.

### Refrigeration System - Two & Three Section Models

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A and R-448A refrigerants is conveniently located behind the one piece louver assembly. It features an easy to clean front facing condenser, thermostatic expansion valve, air-cooled hermetic compressors, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator.

Rear biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation.

A 9' cord and plug is provided standard on two section models. Standard operating temperatures are 34 to 38°F for the refrigerator compartment and 0 to -5°F for the freezer compartment.

### Controller

Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offers a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins (one section models are supplied standard with two wire shelves). Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



**1 Section Models**  
Equipped With One NEMA 5-15 P Plug



**2 & 3 Section Models**  
Equipped With One NEMA 5-20 P Plug

NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

**NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.**

Continued product development may necessitate specification changes without notice

Part No. TR35779 (revised REV. 10-30-19)

**TRAULSEN**  
4401 BLUE MOUND RD.  
PHONE 1 (800) 825-8220  
Website: [www.traulsen.com](http://www.traulsen.com)

FT. WORTH, TX 76106  
FAX-MKTG. 1 (817) 624-4302



Project	Quantity	Item #
Model Specified		CSI Section 11400

### "D-Width" Reach-In Refrigerator Models/ Self-Contained



Model Shown One Section  
(shown with optional casters)



Stainless Exterior  
& Interior



Stainless Exterior,  
Anodized Alumi-  
num Interior

### One & Two Section Models, 35" Deep

1-Section Full Length Door Model	RHT132DUT-FHS*
2-Section Full Length Door Model	RHT232DUT-FHS
1-Section Half Length Door Model	RHT132DUT-HHS*
2-Section Half Length Door Model	RHT232DUT-HHS

1-Section Full Length Door Model	AHT132DUT-FHS*
2-Section Full Length Door Model	AHT232DUT-FHS
1-Section Half Length Door Model	AHT132DUT-HHS*
2-Section Half Length Door Model	AHT232DUT-HHS

The "D-Width" reach-in refrigerator models are all designed to offer maximum interior storage capacity within a narrow 24" or 48" footprint. Each is supplied standard with such high quality features as balanced refrigeration systems, microprocessor controls, and stainless steel exteriors. Additionally, they offer the widest range of optional accessories to choose from, and can be specified for use with many different applications, including: Foodservice, Correctional, Institutional, Export, etc.

### Standard Product Features

- Traulsen's Smart Control with LED Display
- StayClear™ Condenser
- R-Series: Stainless Steel Exterior & Interior
- A-Series: Stainless Steel Exterior/Anodized Aluminum Interior
- Balanced, Self-Contained Refrigeration System Using R-450A
- Rear Biased Return Air Duct
- Full or Half Length Stainless Steel Doors With Locks
- Self-Closing Doors With Stay Open Feature At 120°F
- Guaranteed For Life Cam-Lift Hinges
- Guaranteed For Life Horizontal Work Flow Door Handle
- Standard Door Hinging: 132D = Right, 232D = Left/Right (other hinging not available for two-section models)
- Automatically Activated LED Lights
- Stainless Steel Breaker Caps
- Three Adjustable Wire Shelves Per Section, Supported On Shelf Pins (installed at the factory)
- Automatic Non-Electric Condensate Evaporator
- Magnetic Snap-In EZ-Clean Door Gasket(s)
- Gasket-Protecting Metal Door Liner
- Thermostatic Expansion Valve Metering Device
- Stainless Steel One-Piece Louver Assembly
- 9' Cord & Plug Attached
- Set of Four (4) 6" High Adjustable Stainless Steel Legs
- Three Year Parts And Labor Warranty
- Five Year Compressor Warranty

### Options & Accessories

- Stainless Steel Finished Back With Rear Louvers
- No. 1 Type Tray Slides To Accommodate either (1) 18" x 26" or (2) 14" x 18" Pans
- Additional Wire Shelves or Optional Stainless Steel Shelves
- EZ-Open Foot Pedal (full height doors only)
- Optional 220/50/1 or 208/115/60/1 Voltages
- Kool Klad Exterior Laminate Decor
- Set of Four (4) 4-5/8" or 6" High Casters In Lieu of Legs
- Other Support Options: 4-1/2" High Base or 6" High Kickplate
- Remote Applications (see form TR35837 for more details)<sup>3</sup>
- Remote For Use With 20°F Glycol System
- Clear Glass Door(s) In Place Of One Or More Solid Door(s)



\* Noted models are ENERGY STAR® listed. Please refer to [www.energystar.gov](http://www.energystar.gov) to view the most up-to-date product listing and performance data.



Listed by Underwriters Laboratories Inc., to U.S. and Canadian safety standards and Listed by NSF International.



Approval: \_\_\_\_\_

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Project	Quantity	Item #
Model Specified		CSI Section 11400

## Specification

### Construction, Hardware and Insulation

Cabinet exterior front, one piece sides, louver assembly and doors are constructed of 20 gauge stainless steel with #4 finish. Cabinet interior and door liners are constructed of stainless steel (anodized aluminum in the A-Series). The exterior cabinet top, back and bottom are constructed of heavy gauge galvanized steel. A set of four (4) adjustable 6" high stainless steel legs are included.

Doors are equipped with a gasket protecting metal door pan, removable plug cylinder locks and guaranteed for life cam-lift, gravity action, self-closing metal, glide hinges with stay open feature at 120°F. Hinges include a concealed switch to automatically activate the interior LED lighting. Guaranteed for life, work flow door handles are mounted horizontally over recess in door which limits protrusion from door face into aiseways. Doors have seamless, polished metal corners.

Gasket profile and Santoprene® material simplify cleaning and increase overall gasket life. Anti-condensate heaters are located behind each door opening.

Both the cabinet and door(s) are insulated with an average of 2" thick high density, non-CFC, foamed in place polyurethane.

DIMENSIONAL DATA	R/AHT132DUT	R/AHT232DUT
Net capacity cu. ft.	17.7 (501 cu l)	42.0 (1190 cu l)
Length - overall in.	24 (61.0 cm)	48 (121.9 cm)
Depth - overall in.	35 (88.8 cm)	35 (88.8 cm)
Depth - less handle in.	33¾ (84.4 cm)	33¾ (84.4 cm)
Depth - over body in.	32 (81.3 cm)	32 (81.3 cm)
Depth - door open 90° in.	54¾ (139.1 cm)	54¾ (139.1 cm)
Clear door width in.	18¾ (47.3 cm)	19⅞ (49.7 cm)
Clear half-door height in.	27½ (69.9 cm)	27½ (69.9 cm)
Clear full-door height in.	57½ (146.3 cm)	57½ (146.3 cm)
Height - overall on 6" legs <sup>4</sup>	83¼ (211.5 cm)	83¼ (211.5 cm)
RHT Net Wt. lbs. <sup>1</sup>	330 (150 kg)	574 (260 kg)
AHT Net Wt. lbs. <sup>1</sup>	290 (132 kg)	446 (202 kg)
No. Standard Shelves	3	6
Shelf area sq. ft. <sup>2</sup>	14.2 (1.3 sq m)	31.6 (2.9 sq m)
ELECTRICAL DATA		
Voltage	115/60/1	115/60/1
Feed wires with Ground	3	3
Full load amperes	8.0	10.4
REFRIGERATION DATA		
Refrigerant	R-450A	R-450A
Refrigerant Charge Amount	10 oz	27 oz
BTU/HR H.P. <sup>3</sup>	2220 (⅓ HP)	4200 (⅓ HP)

### NOTES

- NOTE: Figures in parentheses reflect metric equivalents
- For shipping weights and dimensions please refer to form TR35875.
  - Area of standard shelf complement only, does not include storage area of additional shelves or available on cabinet bottom.
  - Based on a 90°F ambient and 20°F evaporator. For information on remote models, please refer to form TR35837.
  - 12" Top clearance preferred for optimum performance and service access.



NOTE: Full load amps and plug style may vary depending on electrical options chosen and condensing unit employed.

**NOTE: When ordering please specify: Voltage, Hinging, Door Size, Options and any additional warranties.**

Continued product development may necessitate specification changes without notice

Part No. TR35758 (REV. 01-21-19)

### Refrigeration System

A top mounted, self-contained, balanced refrigeration system using environmentally friendly, non-flammable R-450A refrigerant is conveniently located behind the one piece louver assembly. It features a finless StayClear™ condenser, thermostatic expansion valve, air-cooled hermetic compressor, large, high humidity evaporator coil located outside the food zone and a top mounted non-electric condensate evaporator. Biased return air duct protects against introduction of warm kitchen air, promoting even temperature maintenance and efficient operation. A 9' cord and plug is provided. Standard operating temperature is 34 to 38°F.

### Controller

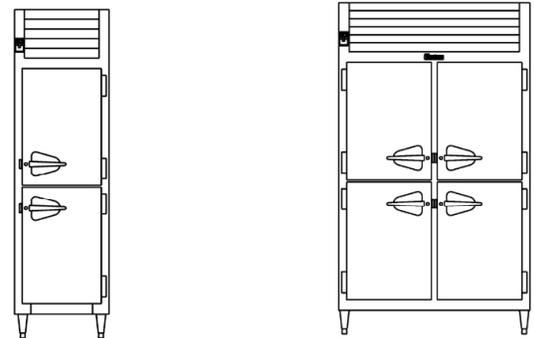
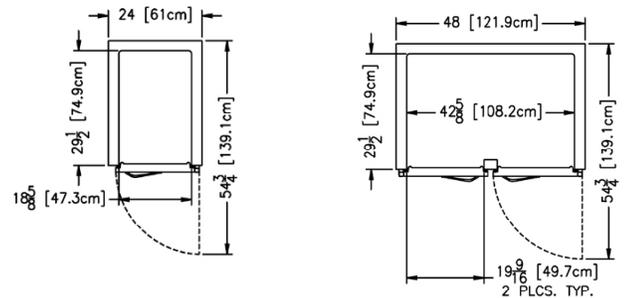
Traulsen's Smart Control features advanced control algorithms and sophisticated diagnostic capabilities. Smart sensors will adapt the operation of the refrigeration system to a variety of environments and usage patterns. The Smart Control offer a complete set of visual alarms designed to alert the user to critical events. In the event of an alarm, a dedicated Alarm LED will illuminate, informing the user of the critical event and describing the event in the large, easy to read full text display.

### Interior

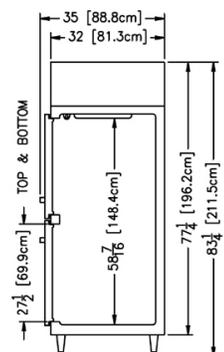
Standard interior arrangements include three (3) coated wire shelves per section, mounted on shelf pins. Shelves are full-width, and do not have any large gaps between them requiring the use of "bridge" or "junior shelves". Recommended load limit per shelf should not exceed 225 lbs. Optional tray slides may be purchased in combination with, or in lieu of these. Standard interior arrangements are installed at the factory and EZ-Change interior slides (only) are field installed.

### Warranties

Both a three year parts and labor warranty and a five year compressor warranty (self-contained models only) are provided standard.



Section - All Models



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**Quality Refrigeration**

# **OWNER'S MANUAL**

**Instructions for the installation, operation  
and maintenance of all Traulsen:**

- R & A Series Reach-In & Roll-In Refrigerators**
- R & A Series Pass-Thru & Roll-Thru Refrigerators**
- R & A Series Reach-In & Roll-In Freezers**
- R & A Series Reach-In Refrigerator/Freezers**
- R & A Series Reach-In & Roll-In Hot Food Cabinets**
- R & A Series Pass-Thru & Roll-Thru Hot Food Cabinets**

**Models Produced after 10/2004 Only**

This Traulsen unit is built to our highest quality standards. We build our refrigerators, freezers and heated cabinets this way as a matter of pride. This philosophy has made Traulsen the leader in commercial refrigeration since 1938. We thank you for your choice and confidence in Traulsen equipment and we know you will receive many years of utility from this equipment.

All Traulsen units are placed on a permanent record file with the service department. In the event of any future questions you may have, please refer to the model and serial number found on the name tag affixed to the unit. Should you need service, however, call us on our toll free number, 800-825-8220 between 7:30 am and 4:30 pm CST, Monday thru Friday. It is our pleasure to help and assist you in every possible way.

## **INSTALLER**

**COMPLETE THE FOLLOWING INFORMATION PRIOR TO UNIT INSTALLATION**

INITIAL START DATE: \_\_\_\_\_ SERIAL NO. \_\_\_\_\_

MODEL TYPE: \_\_\_\_\_

COMPANY/INDIVIDUAL NAME: \_\_\_\_\_

INSTALLER: \_\_\_\_\_

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SERIAL VOLTS	MODEL Hz	PH	
TOTAL CURRENT	AMPS		
MINIMUM CIRCUIT	AMPS		
MAXIMUM OVERCURRENT PROTECTION			AMPS
LIGHTS	WATTS		
HEATERS	AMPS		
REFRIGERANT DESIGN PRESSURE		TYPE HIGH	OZ LOW
REFRIGERANT DESIGN PRESSURE		TYPE HIGH	OZ LOW

370-60294-00 REV (A)



## I. THE SERIAL TAG

The serial tag is a permanently affixed sticker on which is recorded vital electrical and refrigeration data about your Traulsen product, as well as the model and serial number. This tag is located in the upper right interior compartment on all reach-in/pass-thru and roll-in/roll-thru refrigerator, freezer and dual-temp models. For hot food models, this tag is located on the top of the unit behind the louvers to protect it from the heat.

### READING THE SERIAL TAG

- Serial = The permanent ID# of your Traulsen
- Model = The model # of your Traulsen
- Volts = Voltage
- Hz = Cycle
- PH = Phase
- Total Current = Maximum amp draw
- Minimum Circuit = Minimum circuit ampacity
- Lights = Light wattage
- Heaters = Heater amperage (Hot Food units only)
- Refrigerant = Refrigerant type used
- Design Pressure = High & low side operating pressures and refrigerant charge
- Agency Labels = Designates agency listings

## II. RECEIPT INSPECTION

All Traulsen products are factory tested for performance and are free from defects when shipped. The utmost care has been taken in crating this product to protect against damage in transit. All interior fittings have been carefully secured and the legs or casters are boxed and strapped inside to prevent damage. Door keys will be attached to the handle with a nylon strip. The handle is protected by an easily removable nylon netting.

You should carefully inspect your Traulsen unit for damage during delivery. If damage is detected, you should save all the crating materials and make note on the carrier's Bill Of Lading describing this. A freight claim should be filed immediately. If damage is subsequently noted during or immediately after installation, contact the respective carrier and file a freight claim. Under no condition may a damaged unit be returned to Traulsen without first obtaining written permission (return authorization).

## III. INSTALLATION

### III. a - LOCATION:

Select a proper location for your Traulsen unit, away from extreme heat or cold. Allow enough clearance between the unit and the side wall in order to make use of the door stay open feature at 120° (self-closing feature operates up to 90°). The door(s) must be able to open a minimum of 90° in order to make use of the maximum clear door width available.

### III. b - PACKAGING:

All Traulsen units are shipped from the factory bolted to a sturdy wooden pallet and packaged in a durable cardboard container. The carton is attached to the wooden skid with the use of large staples. These should first be removed to avoid scratching the unit when lifting off the crate.

Most exterior stainless steel surfaces have a protective vinyl covering to prevent scratching during manufacturing, shipping and installation. After the unit is installed in place of service, remove and discard the covering from all surfaces.

To remove the wooden pallet, first if at all possible, we suggest that the cabinet remain bolted to the pallet during all transportation to the point of final installation. The bolts can then be removed with a 3/4" socket wrench. Avoid laying the unit on its front, side or back for removal of the pallet.

**NOTE:** Traulsen does not recommend laying the unit down on its front, side or back. However, if you must please be certain to allow the unit to remain in an upright position afterwards for 24 hours before plugging it in so that the compressor oils and refrigerant may settle.

Roll-Thru models also include special interior wood bracing, intended to protect the cabinet during shipment. This bracing should under no circumstances be removed prior to the unit being installed in its final location.

## III. INSTALLATION (continued)

### III. b - PACKAGING (cont'd):

**WARNING:** Read and review these instructions, in their entirety, **BEFORE** attempting to disassemble and remove the interior bracing. If either of the diagonal or upper ceiling braces are dropped, they could cause personal injury or damage to the equipment.

To disassemble the bracing, first open the doors and carefully remove the banding that holds the two diagonal braces together.

**WARNING:** The diagonal braces will now be loose and can fall out of position and possibly permit the ceiling corner brace to fall.

Carefully remove one diagonal brace while supporting the ceiling corner brace, so that it does not fall (see figure 1). Next, remove the ceiling brace, the remaining diagonal brace, and lastly the floor brace - then discard. Repeat as necessary for each section of the unit.

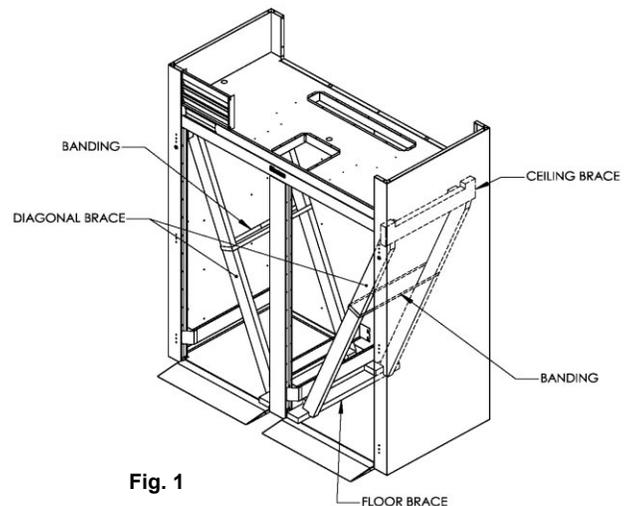


Fig. 1

### III. c - INSTALLING LEGS OR CASTERS:

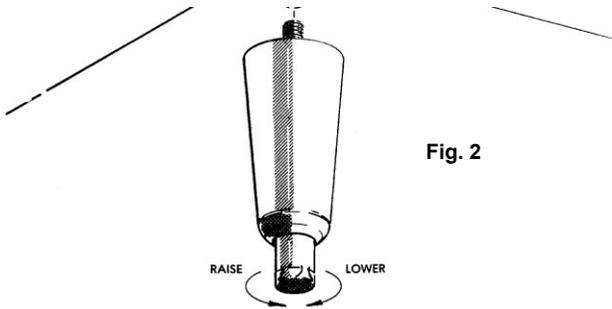
6" high stainless steel legs are supplied standard for all Traulsen reach-in and pass-thru units. Casters in lieu of legs are available as an optional accessory for the same models. These are shipped from the factory packed inside a cardboard box which is strapped to one of the shelves. Remove the nylon strap and open the box, it should contain either four (4) legs or four (4) casters and sixteen (16) bolts.

**WARNING: THE CABINET MUST BE BLOCKED AND STABLE BEFORE INSTALLING LEGS OR CASTERS.**

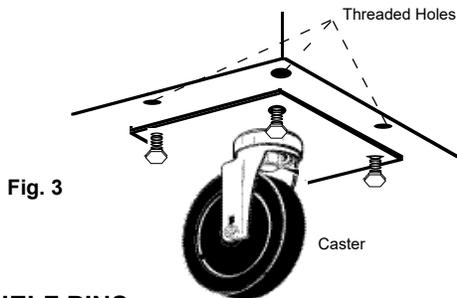
To install the legs or casters, first raise and block the reach-in a minimum of 7" from the floor. For installing legs, thread the legs into the threaded holes on the bottom of the cabinet (see figure 2). Be certain that all legs are tightly secured (legs and casters should be tightened to 300 inch/pounds, max). When the unit is set in its final position, it is important for proper operation that the unit be level. The legs are adjustable for this purpose, turn the bottom of the leg counter-clockwise to raise it, clockwise to lower it. Level the unit from front to back as well as side to side in this manner, using a level placed in the bottom of the cabinet.

### III. INSTALLATION (continued)

#### III. c - INSTALLING LEGS OR CASTERS (cont'd):



Please note that Traulsen units are not designed to be moved while on legs. If the unit requires moving, a pallet jack or forklift should be used to prevent damage. For installing casters, the casters are "plate" type, and require the use of four (4) bolts each to secure them firmly to the cabinet bottom at each corner (see figure 3). The caster bolts are tightened using a 1/2" socket wrench.



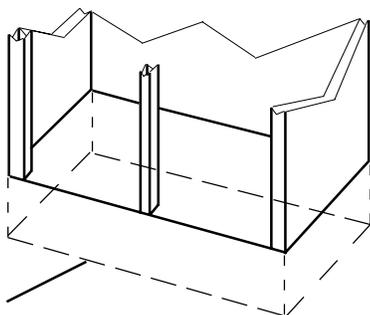
#### III. d - SHELF PINS:

The unit is supplied with shelves and shelf pins installed. Check all shelf pins to assure they are tightened down as they may have come loose during shipping. Rotate the pins clockwise until they are secured against the side of the cabinet.

#### III. e - ROLL-IN MODEL INSTALLATION:

Roll-In cabinets set on the floor require the floor area to be flat and level. In addition, after the cabinet is set in place, sealant should be used around the perimeter of the base to comply with National Sanitation Foundation requirements (see figure 4). After sealing the unit, the enclosed ramp should then be installed.

SEALING BASE OF ROLL-IN MODELS



A SEALANT MUST BE USED AROUND THE PERIMETER OF THE BASE OF CABINET AS SHOWN TO FULLY COMPLY WITH SANITARY REQUIREMENTS.

A RECOMMENDED SEALANT IS DOW CORNING SILASTIC RTV #732

Fig. 4

A stainless steel threshold ramp(s) is included to

#### III. e - ROLL-IN MODEL INSTALLATION (cont'd):

facilitate rolling in racks. It is shipped wrapped in brown paper and secured to the rack guides inside the cabinet. To secure it in place, remove the two thumb screws in the breaker strip near the bottom door opening. Next, loosen the thumb screws located along the floor at the threshold. Place the ramp(s) on top of the loosened thumb screws and secure tabs on each end to breaker strips with thumb screws previously removed. After installing the ramp(s), it too should be sealed to the floor.

Bumper strips are secured to the back of Roll-In models with thumb screws. Loosen these and make them finger tight to conform with the requirements of the National Sanitation Foundation (NSF).

#### III. f - ATTACHING DOUBLE DEPTH UNITS TOGETHER:

Double depth roll-in/roll-thru units are shipped as two separate components which must be attached together at the jobsite. To accomplish this, first, place the front and rear cabinets in close proximity to each other being careful to align the drain from the front of the rear unit to the drain of the front unit. It will be necessary to level both units together at this time.

Next, using two pipe clamps, pull the units together (see figure 5). Install the covers over the gap formed between the units. From inside the cabinets, using the screws provided, install the breaker strips using the strip as a template.

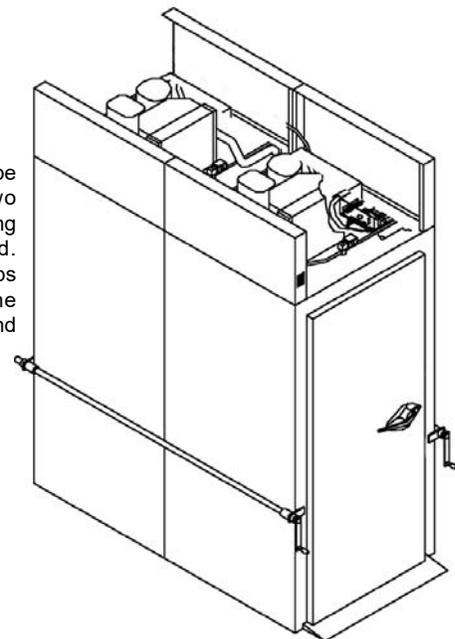


Fig. 5 - Using two pipe clamps, pull the two units together and using the screws provided. Align the breaker strips as a template for the screw pattern inside and outside the cabinet.

#### III. g - INSTALLING THE CONDENSATE EVAPORATOR:

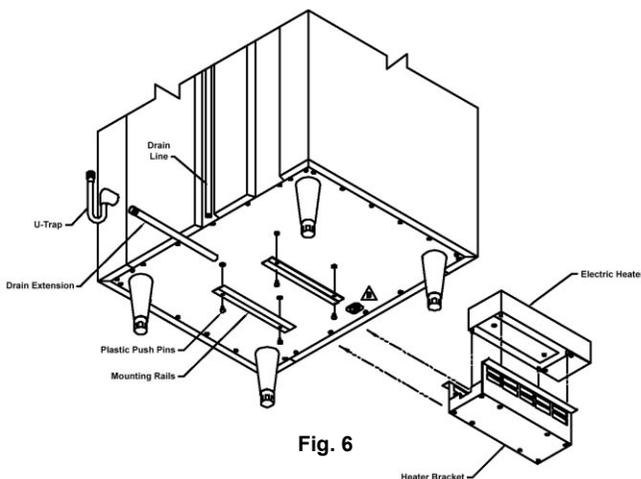
A condensate evaporator is normally supplied on all self-contained models (remote models require provision of either a floor drain or an optional electric condensate evaporator). On those models supplied with a top-mounted evaporator coil compartment, the condensate evaporator is also secured to the top of the cabinet. Check that the condensate pan is properly located underneath the drain tube.

### III. INSTALLATION (continued)

#### III. g - INSTALLING THE CONDENSATE EVAP (cont'd):

**NOTE:** Some models, such as single section dual-temperature refrigerator/freezers, are supplied with a bottom-mounted electric condensate evaporator. This is shipped in a cardboard carton secured to the cabinet interior, and must be **PROPERLY** installed prior to use (see instructions supplied with the condensate evaporator).

After the cabinet has been uncrated and the legs/casters attached, you must install the bottom-mounted electric condensate evaporator. Locate the four (4) holes on the exterior bottom towards the rear of the cabinet. Then, using the four (4) plastic push pins provided, attach the mounting rails to the cabinet bottom (the end flange is to be up and be facing towards the cabinet rear). Next, place the heater into the heater bracket (note the enclosed springs are only to be used when the heater is placed on the floor). Slide heater and bracket into the mounting rails. Plug the supplied cord into both the heater on one end, and the electrical outlet provided on the cabinet exterior bottom towards the front (see figure 6). Screw the "U-Trap" on to the drain line located on the rear of the cabinet and then screw the drain extension into the "U-Trap."



**NOTE:** The use of the "U-TRAP" supplied is required. Failure to use this component may allow cold air to migrate down the drain line, resulting in condensation on the rear of the cabinet.

A remote model is normally supplied configured for condensate to be run to a floor drain unless purchased with a condensate evaporator. The installer is responsible for making the required extension to the floor drain in accordance with good practice and local regulations.

#### III. h - REMOTE INSTALLATION:

Remote models are supplied without compressors, solenoid valves, etc. The correct voltage, amp listing and refrigerant are listed on the units serial tag. It is the responsibility of the installer to specify and supply the correct size compressor(s) based upon this information and on-site requirements. Refrigerant line installation

#### III. h - REMOTE INSTALLATION (cont'd):

must be done in accordance with good practice and local regulations. See section "III. g" for information concerning condensate removal for remote models.

#### III. i - CORD & PLUG:

Most self-contained models are supplied with a cord & plug attached. It is shipped coiled at the top of the cabinet, secured by a nylon strip. For your safety and protection, all units supplied with a cord and plug include a special three-prong grounding plug on the service cord. Select only a dedicated electrical outlet with grounding plug for power source. **NOTE:** Do not under any circumstances, cut or remove the round grounding prong from the plug, or use an extension cord.

#### III. j - POWER SUPPLY:

The supply voltage should be checked prior to connection to be certain that proper voltage for the cabinet wiring is available (refer to the serial tag to determine correct unit voltage). Make connections in accordance with local electrical codes. Use qualified electricians.

Use of a separate, dedicated circuit is required. Size wiring to handle indicated load and provide necessary overcurrent protector in circuit (see amperage requirements on the unit's serial tag).

#### III. k - WIRING DIAGRAM:

Refer to the wiring diagram for any service work performed on the unit. Should you require one, please contact Traulsen Service at (800) 825-8220, and provide the model and serial number of the unit involved.

#### III. l - CLEARANCE:

In order to assure optimum performance, the condensing unit of your Traulsen unit **MUST** have an adequate supply of air for cooling purposes. Therefore, the operating location must either have a minimum of 12" clearance overhead of the condensing unit or allow for unrestricted air flow at the back of the unit. Clearance of at least 12" above is required in order to perform certain maintenance tasks.

## IV. OPERATION

### IV. a - REFRIGERATORS:

Both refrigerators and freezers do not require manual defrosting. During normal operation, a refrigerator continuously circulates above freezing cabinet air through the coil. A compressor "OFF" cycle occurs every hour to melt any frost which may accumulate on the coil during the compressor "ON" cycle. The control will read "dEF" when this occurs. With standard holding refrigerators, high relative humidity is also maintained to prevent dehydration of stored product.

### IV. b - FREEZERS:

During normal operation, a freezer continuously circulates below freezing cabinet air through the coil. The coil requires a periodic defrosting for proper operation. This is accomplished by an automatic, time activated, temperature/time terminated, defrost program. The controller is preset at the factory for six equally spaced defrost cycles within each 24-hour period.

At the start of a freezer defrost cycle, both the compressor and evaporator fans are OFF. The INTELA-TRAUL® control will read "dEF" (see figure 7). The electric heater (attached to the coil) is energized. When a temperature device affixed to the coil senses 70°F (models with electric defrost), the coil is fully defrosted and the compressor operation is resumed, defrost heaters are automatically turned off. The coil fans are delayed from starting at the termination of a defrost cycle. Fan operation is automatically resumed, or they can also be started by a time or temp delay (whichever comes first). In case of temp delay, it uses the same coil sensor and starts at 32°F. The total refrigeration system operation is then resumed.

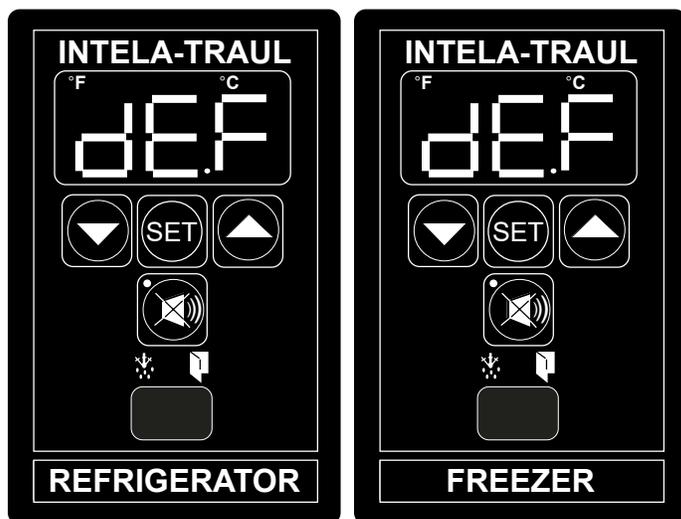


Fig. 7

During freezer defrost operation, heat is confined to the coil enclosure to prevent any significant rise in temperature within the food zone. The fan delay controls function upon termination of a defrost cycle is two-fold. First, to prevent blowing warm air into the food storage area. Second, to prevent any condensation on the defrost coil from being blown into the food storage area.

The INTELA-TRAUL® control is set from the factory to terminate defrost at 20 minutes in the event of a sensor failure. This setting should never be tampered with, without first consulting the factory.

### IV. c- HOT FOOD CABINETS:

Hot food cabinet operation is governed by the INTELA-TRAUL control, which controls the ON/OFF operation of the strip heaters. The control can be set to maintain any operational temperature between 120 - 180° F (in 5°F increments).

Hot food cabinets are delivered from the factory with the control set to the "OFF" position. Follow the instructions in section "VII. t" to get started.

**NOTE:** A vent is included at the top of all hot food cabinets. The vent opening is factory set and secured for best position. Be certain to make sure this vent is kept free of any obstruction.

## V. CARE & MAINTENANCE

### WARNING

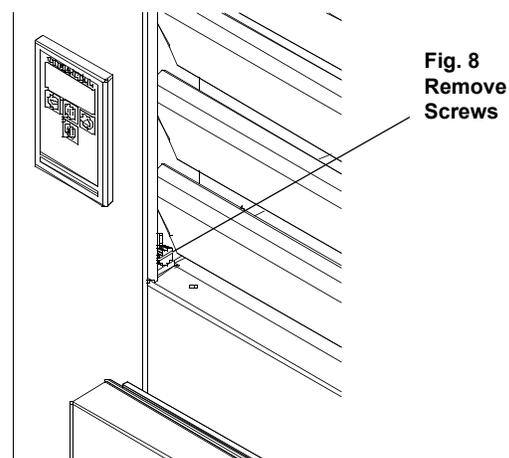
**DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING ANY PARTS OF THE UNIT**

### V. a - CLEANING THE CONDENSER:

The most important thing you can do to insure a long, reliable service life for your Traulsen is to regularly clean the condenser coil.

The condensing unit requires regularly scheduled cleaning to keep the finned condenser clean of lint and dust accumulation. The INTELA-TRAUL control will notify you through a "CLN-FIL" message when cleaning is necessary (see page 8). Keeping the condenser clean allows the cabinet to operate more efficiently and use less energy.

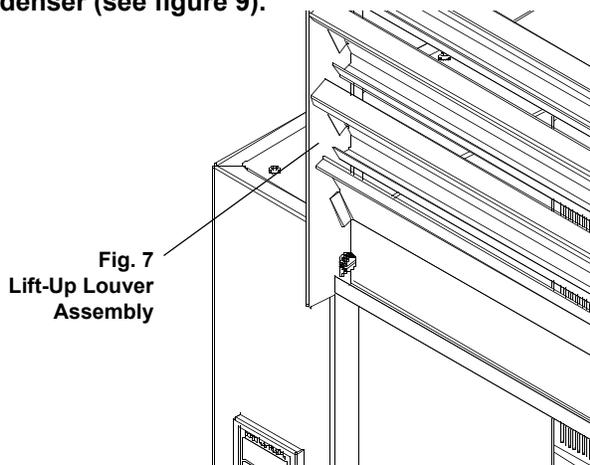
To clean the condenser, first disconnect electrical power to the cabinet and lift up the front louver assembly. To lift this, remove the two screws located on both sides at the bottom of the louver assembly (see figure 8).



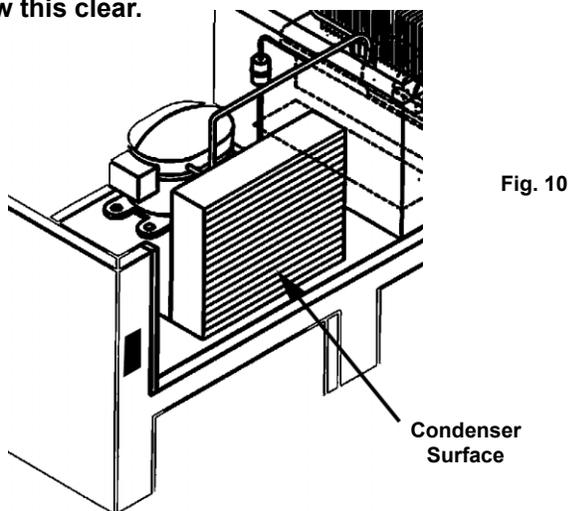
## V. CARE & MAINTENANCE (cont'd)

### V. a - CLEANING THE CONDENSER:

Once the screws are removed, the panel can be pivoted upwards allowing full access to the front facing condenser (see figure 9).



Vacuum or brush any dirt, lint or dust from the finned condenser coil, the compressor and other cooling system parts (see figure 10). If significant dirt is clogging the condenser fins, use compressed air to blow this clear.



Lower louver assembly and replace the screws to hold it in place.

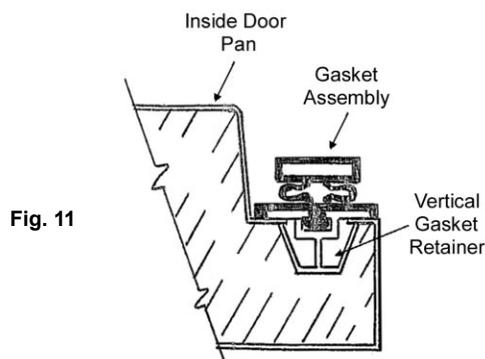
### V. b - HINGE REPLACEMENT:

Both the door and hinge can be easily removed from the cabinet. To remove the door, remove the plug at the bottom of the top hinge. Inside the hinge there is a small screw which secures the door in place. Remove this with a flat head screwdriver and the door can then be lifted off the hinge. To remove the door portion of the hinge from the door, lift off the hinge cover and then remove the three Phillips head screws which secure the hinge in place on the door. To remove the cabinet portion of the hinge, remove the three Phillips head screws which hold it in place. On solid door units, the top hinge(s) contains a microswitch for controlling the interior lighting.

To reassemble the hinge reverse the previous procedure.

### V. c - REPLACING THE GASKETS:

To remove the gasket to be replaced, grasp it firmly by one corner and pull it out. Before attempting to install a new gasket, both the unit and the gasket itself must be at room temperature. Insert the four corners first by using a rubber mallet (or hammer with a block of wood). After the corners are properly inserted, work your way towards the center from both ends by gently hitting with a mallet until the gasket is completely seated in place (see figure 11 for proper gasket placement).



NOTE: The gasket may appear too large, but if it is installed as indicated above it will slip into place.

### V. d - CLEANING THE EXTERIOR:

Exterior stainless steel should be cleaned with warm water, mild soap and a soft cloth. Apply with a dampened cloth and wipe in the direction of the metal grain.

Avoid the use of strong detergents and gritty, abrasive cleaners as they may tend to mar and scratch the surface. Do NOT use cleansers containing chlorine, this may promote corrosion of the stainless steel.

Care should also be taken to avoid splashing the unit with water, containing chlorinated cleansers, when mopping the floor around the unit.

For stubborn odor spills, use baking soda and water (mixed to a 1 TBSP baking soda to 1 pint water ratio).

### V. e - CLEANING THE INTERIOR:

For cleaning both stainless steel and anodized aluminum interiors, the use of baking soda as described in section "V. d" is recommended. Use on breaker strips as well as door gaskets. All interior fittings are removable without tools to facilitate cleaning.

### V. f - ADJUSTING THE SHELVES:

For shelves mounted on pins, first select the desired location and remove the white plastic covers in the interior back and sides by rotating them counter-clockwise. Remove the shelf pins by rotating them counter-clockwise. Install the pins in the desired location by rotating clockwise. Make sure the pin is securely tightened down. Do not over tighten. Slide the shelf into its new position, and replace the white plastic covers into the holes vacated by the shelf pins.

## V. CARE & MAINTENANCE (cont'd)

### V. g - REPLACING THE LIGHT BULB:

All Traulsen R & A Series models are supplied with incandescent lighting unless optional fluorescent lighting was ordered (except for sliding glass door models for which fluorescent lights are supplied standard).

The bulb is a 115 volt/40 watt, T-6½ intermediate clear refrigerator lamp. It is mounted at the top front of the cabinet at the center, and is located behind a plastic light cover on refrigerator and freezer model.

Heated units (RHF/AHF/RIH/AIH/RDH/ADH/RIDH/AIDH) are equipped with a similar type bulb, however this is shatterproof because these models do not include a plastic light cover.

To replace the bulb, first remove the light cover (if so equipped). This can be accomplished by squeezing it together on both sides until it comes free. Replace the light bulb, then squeeze both sides of the light cover together and replace in its original position.

## VI. OTHER

### VI. a - SERVICE INFORMATION:

Before calling for service, please check the following:

- Is the electrical cord plugged in?
- Is the fuse OK or circuit breaker on?
- Is the power switch "ON"?

If after checking the above items and the unit is still not operating properly, please contact an authorized Traulsen service agent. A complete list of authorized service agents was provided along with your Traulsen unit. If you cannot locate this, you may also obtain the name of a service agent from the Service/Contact page of our website: [www.traulsen.com](http://www.traulsen.com).

If service is not satisfactory, please contact our in-house service department at:

Traulsen  
4401 Blue Mound Road  
Fort Worth, TX 76106  
(800) 825-8220

Traulsen reserves the right to change specifications or discontinue models without notice.

### VI. b - SPARE PARTS:

Spare or replacement parts may be obtained through a parts supplier or one of our authorized service agents. A complete list of authorized service agents accompanies this manual and is also posted on our company's official website @ [www.traulsen.com](http://www.traulsen.com).

### VI. c - WARRANTY REGISTRATION:

For your convenience, the warranties on your new Traulsen unit may be registered with us by one of two methods. Completing the enclosed warranty card (shipped with the unit).

## VII. The INTELA-TRAUL® Control System

Your new Traulsen Refrigerator, Freezer or Hot Food cabinet is equipped with a state-of-the-art electronic microprocessor INTELA-TRAUL® control, which precisely regulates operation and provides alarms when problems occur. It is supplied from the factory completely ready for use and requires no adjustment (except Hot Food units which are set in the "OFF" position, see page for 20 for more info), but without the audible alarms activated. See pages 9 thru 20 for more information.



### VII. a - INTELA-TRAUL® CONTROL FEATURES:

#### 1- Internal Time Clock

- Eliminates defrost time clock (refrigerator and freezer models only).
- Defrost cycle can be quickly adjusted to suit individual location and use.
- Must be set at power-up and reset after a power failure.
- Will automatically update for Daylight Savings Time.

**2- Water Resistant Housing** - The face of the control is water resistant to provide for protection during cleaning.

#### 3- Parameter/Service Levels

- See "**Customer / Service Parameters**" on Page 11.

**4- Defrost Lockouts** - See "**Setting Defrost Lockouts**" on page 17 (refrigerator and freezer models only).

- Customers can set up to 4 different defrost lockout periods. The lockout prevents the unit from going into a defrost cycle during peak kitchen use. **Note: The 24-hour clock must be set for this feature to operate correctly.**

**5- Data Storage** - The control comes equipped with 72 hours worth of data storage capability including:

- Records cabinet air temperatures every 6 minutes, needed to document "**Due Diligence**" in accordance with HACCP standards.
- Records alarm events.
- Records diagnostic test of each sensor every 24 hours.
- Records failed security attempts.
- Records door open cycles.
- Records defrost cycles (refrigerator and freezer models only).

**Note: The 24-hour clock and the date must be set for the above information to be recorded at the correct time and date.**

**6- Communication Ability** - An RS485 port is available as a means of retrieving information from the stored data.

**7- Anti-Condensate Door Perimeter Heater Control** (refrigerator and freezer models only)

"No-Sweat" feature is an energy savings system that allows the customer to set the percent on time for the door heater as needed for the prevailing ambient conditions. It is used to prevent condensation from forming around the perimeter of the doors.

**8- Alarms (See the following pages for explanations)**

- High Cabinet Air Temperature
- Low Cabinet Air Temperature
- Loss Of Power
- Sensor Failure
- System Leak (refrigerator, freezer & dual-temp models only)\*
- Door Open\*\*
- Clean Condenser (refrigerator and freezer models only)\*

\* Not Available On Remote Models

\*\* Not Available On Fire-Rated Or Sliding Glass Door Models



**HI/LO-TEMPERATURE  
ALARMS**

**DOOR OPEN  
ALARM**

**POWER LOSS  
ALARM**

**CLEAN CONDENSER  
NOTIFICATION**

## VII. INTELA-TRAUL® (continued)

### VII. a - ALARM EXPLANATIONS:

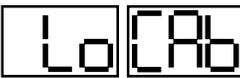
\*NOTE: Explanation of alarms assume the audible alarm style is set at a 3-second burst or a continuous audible alarm. References to the audible alarm do not apply if the audible alarm style is set to OFF (Refer to page 19 for setting the audible alarm style).

The display shows the text "HI CAB" in a segmented font, with "HI" in the first two segments and "CAB" in the last two segments.

**High Cabinet Air Temperature:** The audible alarm\* will sound and the display will read **HI CAB** when the temperature inside the cabinet rises above a pre-programmed limit. The limit is determined by the type of unit being operated (i.e.: refrigerator/freezer). To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will continue to display until the cabinet air temperature falls below the limit. If the temperature does not fall below the limit within 5 minutes, the audible alarm\* will sound again and an additional Call Service message will display.

#### POSSIBLE CAUSES (for Refrigerator & Freezer Models):

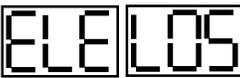
- Doors open for extended periods of time.
- Large amounts of hot product placed inside the cabinet.
- Condenser coil dirty.

The display shows the text "Lo CAB" in a segmented font, with "Lo" in the first two segments and "CAB" in the last two segments.

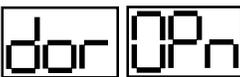
**Low Cabinet Air Temperature:** The audible alarm\* will sound and the display will read **Lo CAB** when the temperature inside the cabinet falls below a pre-programmed limit. The limit is determined by the type of unit being operated (i.e.: refrigerator/freezer). To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will continue to display until the cabinet air temperature rises above the limit. If the temperature does not rise above the limit within 5 minutes, the audible alarm\* will sound again and an additional Call Service message will display.

#### POSSIBLE CAUSES (for Refrigerator & Freezer Models):

- No product in unit.
- Failed sensors.

The display shows the text "ELE LOS" in a segmented font, with "ELE" in the first three segments and "LOS" in the last three segments.

**Loss Of Power:** The audible alarm\* will sound and the display will read Electrical Loss, when the unit regains power after an outage. To turn off the audible alarm\* and/or clear the visual text, press the alarm cancel button. You must reset the clock and date if you are using any defrost lockouts or are retrieving the information from the data storage memory. See "Setting The 24-Hour Clock" page 12 and "Setting the Date" page 15.

The display shows the text "dor OPn" in a segmented font, with "dor" in the first three segments and "OPn" in the last three segments.

**Door Open:** The door open icon on the face of the control will light and the display will read Door Open, after the door or doors have been open for 2 minutes. If the door remains open for an additional 13 minutes the audible alarm\* will sound. To turn off the alarm, **close the door** or press the alarm cancel button. If the door remains open for an additional 5 minutes, the audible alarm\* will sound again (n/a on fire-rated and sliding glass door models).

The display shows the text "CAL SER" in a segmented font, with "CAL" in the first three segments and "SER" in the last three segments.

**System Leak:** The audible alarm\* will sound and the display will read Call Service, when the control detects a leak in the refrigeration system. To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will remain until a service technician has repaired the unit. If the condition remains for 24 hours, the audible alarm\* will sound again.

#### POSSIBLE CAUSES:

- Low refrigerant charge.
- Discharge sensor has failed low.

The display shows the text "CLn FIL" in a segmented font, with "CLn" in the first three segments and "FIL" in the last three segments.

**CONDENSERCLEAN™:** The audible alarm\* will sound and the display will read Clean Filter, when the operating pressures and temperatures exceed a safe operating range. As the load on the condenser decreases, the alarm will turn off by itself. As the pressures on the condenser continues to rise, the audible alarm\* will stay on for longer periods of time. To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will remain until the filter/condenser has been cleaned. If the condition remains for 24 hours, the audible alarm\* will sound again and visual display will read Call Service.

#### POSSIBLE CAUSES:

- Inadequate air flow through condenser unit.
- Discharge sensor has failed high.

The display shows the text "Snr FAL" in a segmented font, with "Snr" in the first three segments and "FAL" in the last three segments.

**Sensor Failures:** The audible alarm\* will sound and the display will read Sensor Failure Call Service, when any of the unit sensors fail to operate. To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will remain until the sensor has been replaced.

The display shows the text "CAL SER" in a segmented font, with "CAL" in the first three segments and "SER" in the last three segments.

Depending on the function of the sensor, the audible alarm\* will sound again in either 5 minutes or 24 hours.

\*Not available on remote models.

## VII. INTELA-TRAUL® (continued)

### VII. c - CONTROL PANEL:

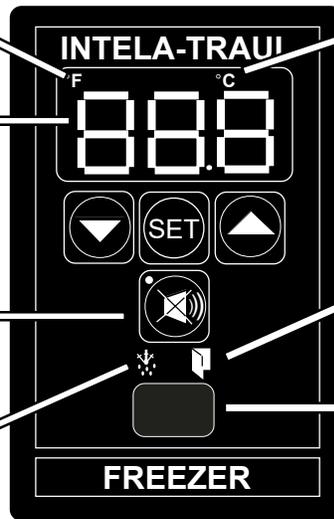
LED FOR °F

LED FOR °C

3-DIGIT (RED)  
LED DISPLAY

ALARM CANCEL  
BUTTON

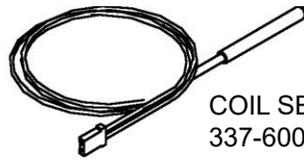
DEFROST ICON  
W / LED



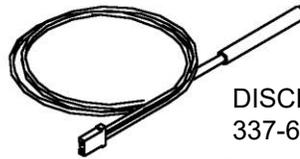
DOOR OPEN ICON  
W / LED

IRDA - INFRA RED  
DATA AQUISION

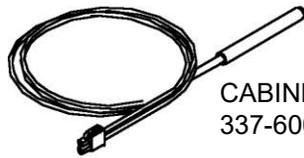
### VII. d - PARTS ASSEMBLY: (Reach-In & Roll-In Cabinets)



COIL SENSOR\*  
337-60071-00  
(refrigerator & freezer only)



DISCHARGE SENSOR\*  
337-60072-00  
(refrigerator & freezer only)

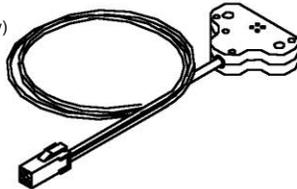


CABINET SENSOR\*  
337-60069-00



HORN\*  
337-60070-00

RH SENSOR\* (refrigerator & freezer only)  
337-60080-00



HOLDER CLIP\*  
377-60038-00

DEFROST COMPRESSOR  
RELAY POWER LINE IN 2  
(refrigerator & freezer only)

DOOR HEATER  
EVAP BLOWER RELAY  
POWER IN LINE 1

TRANSFORMER RS485

DOOR RELAY

CABINET AIR

RH / EXTERNAL AIR (refrigerator & freezer only)

EVAP COIL (refrigerator & freezer only)

INTELA-TRAUL®\*\*  
VERTICAL CONTROLLER  
337-60090-00  
337-60091-00  
337-60092-00  
337-60098-00 (Hot Food Units)  
INCLUDES ALL SHOWN

HORN

DISCHARGE LINE  
(refrigerator & freezer only)

HOLDER CLIP

## VII. INTELA-TRAUL® (continued)

### VII. e - NOTES TO THE USER:

You only have 20-30 seconds between button pushes. If you take longer than 30 seconds, the controller will revert back to displaying the cabinet temperature. If you enter the wrong security code, the controller will revert back to displaying the cabinet temperature. You can exit the parameters at any time by pressing the alarm cancel button or by waiting 20-30 seconds.

### VII. f - ENTER THE CUSTOMER ACCESS: This is required to set any of the control parameters

Use the security code 0, A, 1  and the following instructions:

Press the set button  . The display will read  Customer/Service Access.

Press the set button  .

The display will show three zeros with the left zero flashing   
↑

Press the set button  .

The display will show three zeros with the center zero flashing   
↑

Press the down arrow key  to sequence through F, E, d, C, b, A, 9, 8, 7,...etc.

When you reach A press set  .

The display will show zero, A, zero with the right zero flashing   
↑

Press the up arrow key  to sequence through 1, 2, 3, 4, 5, 6, 7, 8, 9, A, b,...etc.

When you reach 1 press set  .

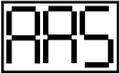
The display will read  Thermostat Set Point High.

You are now in the **CUSTOMER / SERVICE PARAMETERS.**

## VII. INTELA-TRAUL® (continued)

### VII. g - CUSTOMER SERVICE PARAMETERS:

Listed below are the available parameters in the order they appear, using the down arrow key on the controller. You can use either the up or down arrow keys to scroll through the options.

	Thermostat Set Point High*		Defrost Lockout 2
	Thermostat Set Point Low		Defrost Lockout 3
	Temperature Scale*		Defrost Lockout 4
	Audible Alarm Style*		Dew Point Compensation Factor*
	Time (24-hour clock)*		Room Temperature Offset
	Date (month - day - year)*		Evaporator Coil Sensor
	Daylight Savings *		Discharge Line Sensor
	Defrost Lockout 1		Start Manual Defrost

\*Available on Hot Food units.

### VII. h - ADJUSTING THE THERMOSTAT SET POINT HIGH:

This parameter sets the high point of the desired cabinet temperature range. Typically, freezers will range from -3° F to 0° F (-19° C to -18° C) and refrigerators will range from 36° F to 40° F (2° C to 4° C) for this parameter setting. This parameter is preset at the factory and does not have to be adjusted unless the customer chooses to do so. Note: Set Point Low and Set Point High **cannot** be set to the same temperature. There will be at least 1-2 degree difference between the two settings.

Follow the instructions to enter the customer access code on page 11. When the control

display reads  Thermostat Set Point High. Press the set button .

Use the arrow keys   to adjust the temperature to your desired setting.

When the display shows the temperature you want press the set button .

The display will then read  Thermostat Set Point High.

You can use the up or down arrow keys  

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. i - ADJUSTING THE THERMOSTAT SET POINT LOW:

This parameter sets the low point of the desired cabinet temperature range. Typically, freezers will range from -6° F to -4° F (-21° C to -20° C) and refrigerators will range from 32° F to 34° F ( 0° C to 1° C) for this parameter setting. This parameter is preset at the factory and does not have to be adjusted unless the customer chooses to do so. Note: Set Point Low and Set Point High **cannot** be set to the same temperature. There will be at least 1-2 degree difference between the two settings.

Follow the instructions to enter the customer access code on page 11. When the control

displays  Thermostat Set High, press the down arrow key  until the control display reads  Thermostat Set Point Low. Press the set button .

Use the arrow keys   to adjust the temperature to your desired setting.

When the display shows the temperature you want press the set button .

The display will then read  Thermostat Set Point High.

You can use the up or down arrow keys to scroll to the next parameter  

or press the alarm cancel button to exit .

### VII. j - CHANGING THE TEMPERATURE SCALE:

The temperature scale determines if the temperature displayed will be in degrees Fahrenheit or degrees Celsius.

Follow the instructions to enter the customer access code on page 11. When the control

displays  Thermostat Set High, press the down arrow key  until the control display reads  Temperature Scale. Press the set button .

The display will start with the current setting either  for degrees Fahrenheit or  for degrees Celsius. Use the arrow keys   to toggle between the options.

When the display shows the scale you want press the set button .

The display will then read  Thermostat Set Point High.

You can use the up or down arrow keys   to scroll to the next parameter

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. k - SETTING THE 24-HOUR CLOCK:

The internal timeclock must be set in order for the data storage memory to correctly log events and to allow any defrost lockout to occur at the correct time of day. If the clock is not set, the control assumes the time is 12 a.m. at the time power is supplied to the unit. The hours on a 24-hour time clock read the following way:

H01 = 1:00 a.m.	H07 = 7:00 a.m.	H13 = 1:00 p.m.	H19 = 7:00 p.m.
H02 = 2:00 a.m.	H08 = 8:00 a.m.	H14 = 2:00 p.m.	H20 = 8:00 p.m.
H03 = 3:00 a.m.	H09 = 9:00 a.m.	H15 = 3:00 p.m.	H21 = 9:00 p.m.
H04 = 4:00 a.m.	H10 = 10:00 a.m.	H16 = 4:00 p.m.	H22 = 10:00 p.m.
H05 = 5:00 a.m.	H11 = 11:00 a.m.	H17 = 5:00 p.m.	H23 = 11:00 p.m.
H06 = 6:00 a.m.	H12 = 12:00 p.m.	H18 = 6:00 p.m.	H24 = 12:00 a.m.

Follow the instructions to enter the customer access code on page 11. When the control

displays  Thermostat Set High, press the down arrow key  until the control

display reads  Clock. Press the set button .

The display will show  Hours. The right two numbers will be flashing.

Use the arrow keys   to set the hour.

When the correct hour is displayed, press the set button .

The display will show  Minutes. The right two numbers will be flashing.

Use the arrow keys to set the minutes  .

When the correct minutes are displayed, press the set button .

The display will then read  Thermostat Set Point High.

You can use the up or down arrow keys   to scroll to the next parameter

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. I - SETTING THE DATE:

The date must be set in order for the data storage memory to correctly log events. Follow the instructions to enter the customer access code on page 11. When the control displays  Thermostat Set Point High, press the down arrow key  until the control display reads  Date. Press the set button . The display will show  (year). The right two numbers will be flashing. Press the arrow keys   to set the year. When the correct year is displayed, press the set button . The display will show  (month). The right two numbers will be flashing. Use the arrow keys   to set the month. When the correct month is displayed, press the set button . The display will show  (day). The right two numbers will be flashing. Press the arrow keys   to set the day. When the correct day is displayed, press the set button . The display will then read  Thermostat Set Point High. You can use the up or down arrow keys   to scroll to the next parameter, press the alarm cancel button to exit .

### VII. m - SETTING DAYLIGHT SAVINGS TIME:

This parameter is preset at the factory to automatically adjust the 24-hour clock for Daylight Savings Time. Follow the instructions to enter the customer access code on page 11. When the control displays  Thermostat Set Point High, press the down arrow key  until the display reads  Daylight Savings Time. Press the set button . The display will show  Daylight Savings Time (Yes, automatically adjust for Daylight Savings Time). For "YES," press the set button , for "NO" press the up or down arrow key  . The display will read  Daylight Savings Time (no). Press the set button . The display will read  Thermostat Set Point High. You can press the the up or down arrow keys   to scroll to the next parameter or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. n - STARTING A MANUAL DEFROST CYCLE:

This parameter allows a service technician to start a defrost cycle at any time. This parameter will override any lockout settings.

Follow the instructions to enter the customer access code on page 11. When the control

displays  Thermostat Set High, press the down arrow key  until the control display reads  Start Manual Defrost.

Press the set button .

The display will show  (NO).

Press either arrow key   (YES).

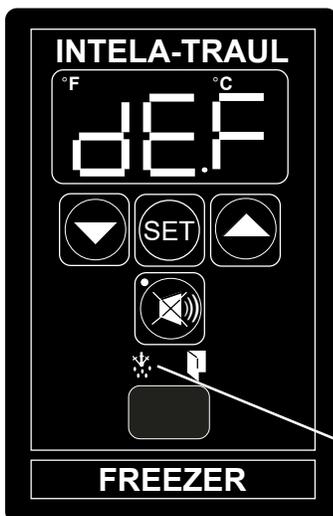
The display will show .

Press the set button .

The display will then read  Thermostat Set Point High.

You can use the up or down arrow keys   to scroll to the next parameter or press the alarm cancel button to exit .

### Reach-In/Roll-In Models



The defrost icon will be lit,  
and the display will read  
 when the unit is  
in defrost.

**DEFROST ICON**

**NOTE:** Traulsen refrigerator units also have an off-cycle defrost once an hour, at which time the control will read . This defrost is temperature terminated and can last from 3 - 10 minutes (dEF will be displayed for 22-27 minutes).

## VII. INTELA-TRAUL® (continued)

### VII. o - SETTING THE DEFROST LOCKOUTS:

The defrost lockout parameters allow the customer to prevent the unit from going into a defrost cycle for two hours during a set timeframe. Customers can set up to four defrost lockout parameters. They are all programmed the same way. The parameters will be set for the time the lockout is to start. The controller automatically calculates 2 hours from that setting. The options are similar to the 24-hour clock settings and are in 30-minute increments. Each of the lockout parameters covers 6 hours of the 24-hour clock. Note: The 24-hour clock must be set for this feature to operate at the correct time of day. See “**Setting the 24-Hour Clock**” on page 14.

Sample:

OFF

020 = 2:00 a.m.

023 = 2:30 a.m.

030 = 3:00 a.m.

033 = 3:30 a.m.

040 = 4:00 a.m.

043 = 4:30 a.m.

050 = 5:00 a.m.

053 = 5:30 a.m.

060 = 6:00 a.m.

063 = 6:30 a.m.

070 = 7:00 a.m.

073 = 7:30 a.m.

080 = 8:00 a.m.

OFF

080 = 8:00 a.m.

083 = 8:30 a.m.

090 = 9:00 a.m.

093 = 9:30 a.m.

100 = 10:00 a.m.

103 = 10:30 a.m.

110 = 11:00 a.m.

113 = 11:30 a.m.

120 = 12:00 p.m.

123 = 12:30 p.m.

130 = 1:00 p.m.

133 = 1:30 p.m.

140 = 2:00 p.m.

OFF

140 = 2:00 p.m.

143 = 2:30 p.m.

150 = 3:00 p.m.

153 = 3:30 p.m.

160 = 4:00 p.m.

163 = 4:30 p.m.

170 = 5:00 p.m.

173 = 5:30 p.m.

180 = 6:00 p.m.

183 = 6:30 p.m.

190 = 7:00 p.m.

193 = 7:30 p.m.

200 = 8:00 p.m.

OFF

200 = 8:00 p.m.

203 = 8:30 p.m.

210 = 9:00 p.m.

213 = 9:30 p.m.

220 = 10:00 p.m.

223 = 10:30 p.m.

230 = 11:00 p.m.

233 = 11:30 p.m.

240\* = 12:00 a.m.

243\* = 12:30 a.m.

010 = 1:00 a.m.

013 = 1:30 a.m.

020 = 2:00 a.m.

\* Denotes not available.

A lockout cannot be programmed to start at 12:00 a.m. or 12:30 a.m. due to conflicts with other internal programs. The defrost lockouts cannot be programmed to run back-to-back. For example, if dL1 is set to 080, then a defrost cycle would be locked out from 8:00 a.m. to 10:00 a.m. Because of the dL1 setting the dL2 parameter would not let the user choose a lockout start time before 10:30 a.m. All lockouts are preset at the factory to OFF.

Follow the instructions to enter the customer access code on page 11. When the control

displays Thermostat Set High, press the down arrow key until the control the

control display reads or . Press the set button .

The display will show Off. Press the arrow keys to set the start time.

When the correct time is displayed, press the set button .

The display will then read Thermostat Set Point High.

You can press the up or down arrow keys to scroll to the next parameter

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. p - ADJUSTING THE DOOR PERIMETER HEATERS:

This parameter allows the customer to turn ON and OFF the anti-condensate door perimeter heaters. This parameter is set to the highest setting (100) at the factory so that the door heaters stay on continuously. If you choose to have the door heaters cycle on and off, lower this parameter to approximately 30. If condensation forms around the doors, increase the parameter until condensation stops. The exact setting will vary depending on ambient conditions. This feature is not available on undercounter models.

Follow the instructions to enter the customer access code on page 11. When the control displays

 Thermostat Set High, press the down arrow key  until the control display reads   
DewPoint Compensation Factor. Press the set button . Press the arrow keys   to  
adjust the factor to your desired setting. When the display shows the factor you want press the set  
button . The display will then read  Thermostat Set Point High. You can use the up or  
down arrow keys   to scroll to the next parameter or press the alarm cancel button to exit  
.

### VII. q - ADJUSTING THE ROOM TEMPERATURE OFFSET:

The room temperature offset parameter allows a service technician or end user the ability to have the display show a temperature that is within three degrees of the actual temperature being read by the cabinet air sensor. This allows for continuity of reading between different temperature reading devices. (i.e.: thermistor Vs thermocouple Vs handheld thermometer) This parameter is preset at the factory to "0" or no offset.

Follow the instructions to enter the customer access code on page 11. When the control displays

 Thermostat Set High, press the down arrow key  until the control display reads   
Room Temperature Offset. Press the set button . Use the arrow keys   to adjust the  
offset to your desired setting. When the display shows the offset you want press the set button .  
The display will then read  Thermostat Set Point High. You can use the up or down arrow  
keys   to scroll to the next parameter or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. r - SETTING THE AUDIBLE ALARM STYLE:

This parameter will allow the customer to turn on/off the audible alarm feature on the INTELA-TRAUL® control. The audible alarm is preset from the factory to OFF. The customer can choose between an audible alarm that sounds for 3 seconds then automatically turns off, or a continuous audible alarm that must be manually acknowledged. Regardless of this feature's setting, visual alarm text will display when conditions warrant.

To adjust this setting, follow the instructions to enter the customer access code on page 11. When the control displays  Thermostat Set Point High, press the up arrow key  until the display reads  Audible Alarm Style. Press the set button . The display will read  OFF. Use the arrow keys   to scroll between  for the 3-Second Audible Alarm Burst or  for Continuous Audible Alarm. When the display shows your choice of style, press the set button . The display will then read  thermostat Set Point High. Use the arrow keys   to scroll to the next parameter or press the Alarm Cancel Button  to exit.

### VII. s - VIEWING SENSOR TEMPERATURES:

These parameters allow a service technician or customer to view the temperature of all sensors within the unit. The temperatures cannot be adjusted.

Follow the instructions to enter the customer access code on page 11. When the control displays Thermostat Set Point High , press the DOWN arrow key  until the display reads Evaporator Coil Sensor  or Discharge Line Sensor  or press the SET button . The display will read Thermostat Set Point High .

Press the UP or DOWN arrow keys   to scroll through the parameters or press the ALARM CANCEL button  to exit.

## VII. INTELA-TRAUL® (continued)

### VII. t - HOT FOOD UNITS, ADJUSTING THE THERMOSTAT & TURNING THE UNIT OFF/ON:

This parameter sets the desired cabinet temperature. Please note that hot food units are delivered from the factory set to the OFF position.

Follow the instructions to enter the customer access code on page 11. When the control reads

**SPH**

Thermostat Set Point High, press the set button **SET**.

Use the arrow keys   to adjust the temperature to your desired setting. When the display shows the temperature you want press the set button **SET**. The display will then read

**SPH**

Thermostat Set Point High. You can use the up or down   arrow keys to scroll to the next parameter or press the alarm cancel button  to exit.

### VII. u - HOT FOOD UNITS, TURNING THE UNIT OFF/ON:

After the temperature has been set, the customer can continuously turn the unit OFF and then back ON to the same temperature. To turn the unit ON /OFF press the alarm cancel button , (please note that this feature is not available on versions of the control manufactured prior to September 2000), or if an alarm warning condition is present, use the alternative ON/OFF activation method.

To turn the unit ON/OFF using the alternative method, press both arrows   at the same time, the set temperature will remain in memory.

### VII. u - HOT FOOD UNITS, TEMPERATURE ADJUSTMENT:

Press the **SET** button **SET** and the **UP ARROW** button  at the same time. The display will flash the current temperature setting or **OFF** (if the unit is turned off). Use the **UP**  or **DOWN ARROW**  buttons to adjust your desired temperature setting (temperature range is 120° thru 180° F, and OFF) then press the **SET** button **SET**. The display will go back to reading cabinet temperature. If **OFF** is selected, the display will then read **OFF**. **NOTE:** If you wish to change the set temperature at anytime follow this procedure.

These models also include a “One-Time Temperature Setting Adjustment” feature. Upon start-up, the unit will warm-up to the last temperature you had set for it, unless changed.

## VIII. TROUBLE SHOOTING GUIDE

FIND YOUR PROBLEM HERE	REMEDY
1. Condensing unit fails to start.	<ul style="list-style-type: none"> <li>a. Check if cord &amp; plug has been disconnected.</li> <li>b. Check INTELA-TRAUL® temperature setting.</li> </ul>
2. Condensing unit operates for prolonged periods or continuously.	<ul style="list-style-type: none"> <li>a. Are doors closing properly?</li> <li>b. Dirty condenser or filter. Clean properly.</li> <li>c. Evaporator coil iced. Needs to defrost. See instructions for setting a manual defrost cycle on page 16.</li> <li>d. Shortage of refrigerant, call service.</li> </ul>
3. Food compartment is too warm.	<ul style="list-style-type: none"> <li>a. Check door(s) and gasket(s) for proper seal</li> <li>b. Perhaps a large quantity of warm food has recently been added or the door was kept open for a long period of time, in both cases, allow adequate time for the cabinet to recover its normal operating temperature.</li> <li>c. INTELA-TRAUL® setting too high, readjust per instructions on page 12.</li> </ul>
4. Food compartment is too cold.	<ul style="list-style-type: none"> <li>a. Perhaps a large quantity of very cold or frozen food has recently been added. Allow adequate time for the cabinet to recover its normal operating temperature.</li> <li>b. Adjust the INTELA-TRAUL® to a warmer setting, see page 13.</li> </ul>
5. Condensation on the exterior surface.	<ul style="list-style-type: none"> <li>a. Check door alignment and gaskets for proper seal.</li> <li>b. Condensation on the exterior surface of the unit is perfectly normal during periods of high humidity. However, to alleviate the condition, adjust the INTELA-TRAUL® “Dewpoint Compensation Factor,” see page 18.</li> </ul>
6. Compressor hums but does not start.	<ul style="list-style-type: none"> <li>a. Call for service.</li> </ul>

## XI. SPARE PARTS LIST

PART	PART #	DESCRIPTION
Bulb, Fluorescent	337-27690-00	Replacement bulb for fluorescent light models
Bulb, Incandescent	378-29776-00	Replacement bulb for incandescent light models
Bulb Cover	337-30858-00	Replacement bulb cover for incandescent light models
Caster, 6" High	344-13140-01	Optional caster for all reach-in models
Caster, 4" High W/O Brake	SMO-28627-00	Optional lower height caster
Caster, 4" High W/Brake	SMO-28628-00	Optional lower height caster
Caster Bolt (4 req'd per caster)	351-25542-00	Bolt for above
Door Handle, Stainless Steel	344-37690-00	Replacement handle for solid door units
Door Lock, Sliding Glass	346-60005-00	Jewelers type door lock for sliding glass door model
Hinge Cam	344-28488-00	Replacement hinge cam
Hinge Cover	344-28486-00	Replacement hinge cover
Hinge, Spring Assist	SER-29021-03	Alternative hinge, spring assist
Hinge Assembly W/Stop Feature	SER-40677-02	Alternative hinge, stop feature
Hinge Assembly	SER-28583-00	Replacement hinge assembly
Key, Master	346-29467-00	Replacement key for solid door units
Leg, 4" High Adjustable	344-29558-00	Replacement or optional leg
Leg, 6" High Adjustable	344-13168-01	Replacement leg
Shelf Pin	344-24759-00	Replacement shelf pin
Shelf Clip	344-08982-00	Replacement shelf clip for pilasters
Tray Slide, #4 Chrome Rod Type	340-04842-00	Tray slide for rim support of 18" x 26" pan
Tray Slide, Universal	719-07805-00	Tray slide for 18" x 26", 14" x 18" or 12" x 20" pan
Tray Slide, #1	719-20236-00	Tray slide for 18" x 26" or 14" x 18" pan

## XII. STAINLESS STEEL OVERVIEW

### XII. a - INTRODUCTION:

All Traulsen R & A Series Refrigerator, Freezer, Dual-Temp and Heated Cabinet models are constructed with a high quality 430 series, 20 gauge stainless steel exterior finish (front, sides and doors). The interior finish on these same R-Series models are constructed using 300 series stainless steel (anodized aluminum is used for A-Series).

The stainless steel finish on Traulsen R & A Series should retain its appearance throughout the products usable lifetime. However, some care is required to maintain this appearance. The following paragraphs will provide a guideline on proper care of the exterior/interior finish, as well as some suggestions on how to repair a finish which has been marred due to adverse environmental conditions or improper jobsite care.

### XII. b - STAINLESS STEEL, HOW IT WORKS:

The process by which stainless steel retains its appearance is a result of its type of metal alloy. Steel is a composite of metals combined in a specific industrial process. Stainless steel contains a high percentage of chromium, the addition of which provides both its appearance, and a microscopic surface layer protecting the steel underneath from corrosion. This external layer acts as a barrier, preventing typical oxidation of the steel. Remove this barrier, and the environment will eventually corrode the metal, marring its appearance.

### XII. c - UNDERSTANDING THE CAUSES OF CORROSION:

Corrosion to stainless steel can only be caused in one of four specific ways:

#### 1) **ABRASION**

Abrasion can be caused during routine cleaning of the metal, either by use of an abrasive cleanser, or use of an abrasive device, such as a metal scouring pad. Abrasion can also be caused by contact with other hard surfaces, such as nearby equipment, walls or tools. Special care should be taken to position your unit properly to prevent accidental dents and scratches.

#### 2) **WATER**

Water everywhere contains various deposits, or solids, which as the water dries or evaporates, can leave spots behind. The spots may eventually cause corrosion if not removed.

#### 3) **CHEMICALS OR WATER CONTAINING CHLORIDES**

Chlorides, such as found in water or many cleaning materials are especially corrosive to stainless steel. Daily janitorial duties, such as floor mopping, can splash water containing chlorinated cleansers against the front and sides of a Traulsen refrigeration product, resulting in corrosion. Avoid use of these on or around a Traulsen refrigeration product if at all possible.

#### 4) **PROLONGED CONTACT WITH FOOD PRODUCT**

Many food products, such as milk and carbonated sodas, contain acids which may damage the protective layer of stainless steel. All food and beverage spills

XII. c - UNDERSTANDING THE CAUSES OF CORROSION: should be cleaned up promptly to avoid possible stains and corrosion.

## XIII. CARE OF STAINLESS STEEL

### XIII. a - USING THE PROPER TOOLS:

Use of proper cleaning materials will do much to prolong the appearance of your Traulsen refrigeration product. We particularly encourage the use of either plastic scouring pads or soft cloths for cleaning stainless steel.

Soft nylon scouring pads can also be used, however care has to be used to insure that all scrubbing is done in the direction of the metals "GRAIN." Because metals are crystalline in nature, when they are in a solid state the individual ions line up to form visible grain lines. Use of a soft nylon scouring pad in a direction opposite of the grain will mar its luster. Always do so "PARALLEL" to the grain.

There are several types of tools which should **NEVER BE USED** when cleaning stainless steel, these include:

- WIRE BRUSHES
- METAL SCOURING PADS
- SANDPAPER
- SCRAPERS & PUTTY KNIVES

Use of any of these tools will result in scratches or removal of the stainless steel's protective layer, which will eventually lead to corrosion and rust.

### XIII. b - USING THE RIGHT CLEANSER:

Avoid all cleaning products containing chloride ingredients. Use of a cleanser specifically designed for stainless steel is highly recommended. You may find yourself in a situation where you are uncertain if a particular cleaning product contains any chlorides. If unsure, it's probably best to just assume that it does and avoid its use in cleaning a Traulsen refrigeration product.

Also to be avoided are cleaning products which contain "QUATERNARY SALTS." These salts can literally attack the stainless steel's protective layer, leading to corrosion and pitting of the steel's surface.

After cleaning, it is important to always rinse the cleaned area thoroughly with cool, clean water (do not use hot water) and wipe completely dry using a paper towel or soft absorbent cloth.

Use of cleaning products designed for use on stainless steel, in conjunction with the proper tools, as outlined above will help retain the appearance of your Traulsen refrigeration product for years and years.

### **XIII. CARE OF STAINLESS STEEL (cont'd)**

#### **XIII. c - CLEANING SUMMARY - DO'S & DONT'S:**

To summarize the proper cleaning of Traulsen refrigeration products, always follow the below guidelines.

- DO** use only cleaning products designed for stainless steel, or cleaning products which do not contain chlorides.
- DO** use only non-abrasive cleaning materials, such as soft cloths or plastic scouring pads.
- DO** clean-up food and beverage spills ASAP.
- DO** scrub only in the direction of the grain when using soft nylon scouring pads.
- DON'T** use chlorinated cleansers or cleansers containing quaternary salts.
- DON'T** use abrasive cleaning materials or tools which can scratch the stainless steel's surface.

#### **XIII. d - DEALING WITH ACCIDENTAL CHLORIDE CONTACT:**

In the daily routine of a busy foodservice operation, your Traulsen refrigeration product may occasionally come in contact with chlorinated cleaners, such as when being splashed during mopping. Stain and corrosion problems resulting from this can be avoided by prompt action to remove this cleanser. Rinse the affected area(s) thoroughly with cool, clean water (do not use hot water) and wipe completely dry using a paper towel or soft absorbent cloth.

#### **XIII. e - PROTECTING THE STAINLESS STEEL SURFACE:**

Occasional use of a commercial stainless steel polish, such as "Sheila Shine," will help protect the surface of stainless steel. Follow the directions on the spray can for proper use.

### **XIV. CORROSION REMEDIES**

#### **XIV. a - DEALING WITH RUST AFTER THE FACT:**

Although Traulsen strongly recommends proper care and cleaning of stainless steel finishes in order to avoid rust and corrosion before it occurs, we recognize that it may occur occasionally as a result of the causes described in section one of this booklet.

To remove small quantities of rust from the surface of stainless steel, it is far preferable to deal with this when it first becomes visible. When rust occurs, do not allow it to remain for any period of time, and remove it using the following method:

**STEP ONE** - Use a lightly abrasive compound (free of harmful chlorides), such as "Bon Ami," on a soft cloth, to remove the rust. Care must be taken to rub this on the area of rust only in the direction of the stainless steel's grain.

**STEP TWO** - Once the rust is removed, clean the affected area thoroughly with a stainless steel cleaner (see sections II. a & b).

### **XIV. CORROSION REMEDIES**

#### **XIV. a - DEALING WITH RUST AFTER THE FACT (cont'd):**

**STEP THREE** - Apply a preservative polish, such as "Sheila Shine," to the affected area (see section II. e).

#### **XIV. b - DEALING WITH EXTREME RUST SITUATIONS:**

In the event that rust and corrosion were not dealt with promptly, more acute situations can be remedied as follows:

**NOTE: PROCEDURE REQUIRES USE OF AN ACID BASED SOLUTION - USE OF PROTECTIVE GLOVES AND EYEWEAR ARE REQUIRED BEFORE PROCEEDING**

**STEP ONE** - In a clean spray bottle combine water with "Zep FS Lime Remover" to make a 5 parts to 1 solution.

**STEP TWO** - Apply this solution to the affected area with either a clean cloth or sponge.

**STEP THREE** - After application, wipe the same area thoroughly clean with water only to remove any residue.

**STEP FOUR** - Once cleaned, apply a light coat of "Zep Restore" to the surface area. This will serve to preserve the metal and help prevent future rust from occurring.

**STEP FIVE** - Restore the remaining stainless steel surfaces to their original shine using "Zep Stainless Steel Polish."

Repeat steps one thru five if necessary for stubborn rust and corrosion areas.

#### **XIV. c - RESTORING THE PROTECTIVE LAYER:**

There are several products available on the market today which can actually help restore the "PASSIVATION" of stainless steel. "PASSIVATION" refers to the protective qualities of the non-reactive surface layer of stainless steel which prevents oxidation. Contact your cleaning supplier for product recommendations and more information.

## XV. WARRANTY INFORMATION

### STANDARD DOMESTIC WARRANTY

TRAUALSEN warrants new equipment to the original purchaser, when installed within the United States against defective material and workmanship for one (1) year from the date of original installation. Under this warranty, TRAUALSEN will repair or replace, at its option, including service and labor, all parts found to be defective and subject to this warranty. The compressor part is warranted for an additional four (4) years. During this period TRAUALSEN will supply replacement compressor(s) if deemed defective, however all installation, recharging and repair costs will remain the responsibility of the owner.

This warranty does not apply to damage resulting from fire, water, burglary, accident, abuse, misuse, transit, acts of God, terrorism, attempted repairs, improper installation by unauthorized persons, and does not apply to food loss.

For Traulsen units purchased with a remote feature, standard warranty will apply only to those components contained within the unit to the point of connection of the refrigeration lines leading to the remote condenser.

THERE ARE NO ORAL, STATUTORY OR IMPLIED WARRANTIES APPLICABLE TO TRAUALSEN, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. TRAUALSEN SHALL HAVE NO OBLIGATION OR LIABILITY FOR CONSEQUENTIAL OR SPECIAL DAMAGES, GROWING OUT OF OR WITH RESPECT TO THE EQUIPMENT OR ITS SALE, OPERATION OR USE, AND TRAUALSEN NEITHER ASSUMES NOR AUTHORIZES ANYONE ELSE TO ASSUME FOR IT ANY OBLIGATION OR LIABILITY IN CONNECTION WITH THE EQUIPMENT OR ITS SALE, OPERATION OR USE OTHER THAN AS STATED HEREIN.

### INTELA-TRAUL® CONTROL WARRANTY

TRAUALSEN warrants to the original purchaser of the INTELA-TRAUL® control when installed as part of the Refrigeration/Hot Food Equipment manufactured and sold by TRAUALSEN, to be free of defects in material and workmanship under normal service and use for a period of two (2) years from the date of installation. Under this warranty statement, TRAUALSEN will repair or exchange at TRAUALSEN'S discretion, F.O.B. factory, any part of said control, which proves to be defective. Inspection by the TRAUALSEN Service Department of parts claimed defective shall be final in determining warranty status. The warranty is to include repair or exchange of any defective In-Warranty control or part(s) of said control for:

**Part(s) – Any TRAUALSEN INTELA-TRAUL® supplied part(s) found to be defective.**

**Labor – The labor charges from a TRAUALSEN certified service agent to effect the repair or exchange of the defective part(s).**

“Defective Part Return” – All claimed defective part(s) must be returned to TRAUALSEN for defect validation within 30 days from the date of the repair. Failure to return all claimed defective part(s) to TRAUALSEN will invalidate the warranty claim, this warranty statement, and forfeit payment for those repairs effected.

This warranty does not apply to damage resulting from fire, water, burglary, accident, abuse, misuse, transit, acts of God, terrorism, attempted repairs, improper installation by unauthorized persons, and does not apply to food loss, and will not apply if said equipment is located outside The United States.

### INTERNATIONAL COMMERCIAL WARRANTY

TRAUALSEN warrants to the original purchaser the Refrigeration Equipment manufactured and sold by it to be free from defects in material and workmanship under normal use and service for a period of one (1) year from date of shipment. Under this warranty, TRAUALSEN will reimburse the purchaser for the replacement of any part of said equipment (excluding dryers & refrigerant gas) which then proves to be defective. This warranty does not apply to damage resulting from fire, water, burglary, accident, abuse, misuse, transit, acts of God, terrorism, attempted repairs, improper installation by unauthorized persons, and will not apply to food loss.

TRAUALSEN'S standard warranty does not apply to Export Sales. Rather, for a period of one (1) year from date of original installation not to exceed Fifteen (15) months from date of shipment from factory, TRAUALSEN:

**will replace, F.O.B. factory, any defective parts normally subject to warranty.**

**will not cover the cost of packing, freight or labor such costs being the sole responsibility of the dealer.**

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED AND CONSTITUTES TRAUALSEN'S FULL OBLIGATION AND LIABILITY. WARRANTIES NOT AVAILABLE ON REMOTE MODELS.**

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**HOURS OF OPERATION:**

Monday thru Friday 7:30 am - 4:30 pm CST



Quality Refrigeration

**Traulsen**

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**Quality Refrigeration**

# **OWNER'S MANUAL**

**Instructions for the installation, operation  
and maintenance of all Traulsen:**

- R & A Series Reach-In & Roll-In Refrigerators\***
- R & A Series Pass-Thru & Roll-Thru Refrigerators\***
- R & A Series Reach-In & Roll-In Freezers\***
- R & A Series Reach-In Refrigerator/Freezers\***
- R & A Series Reach-In & Roll-In Hot Food Cabinets\***
- R & A Series Pass-Thru & Roll-Thru Hot Food Cabinets\***

\* **Please Note:** This manual is intended for use with the above referenced equipment manufactured after May 1, 2006. To obtain a copy of the correct Owner's Manual to support the same products manufactured prior to this date, please contact Traulsen Service at (800) 825-8220.

This Traulsen unit is built to our highest quality standards. We build our refrigerators, freezers and heated cabinets this way as a matter of pride. This philosophy has made Traulsen the leader in commercial refrigeration since 1938. We thank you for your choice and confidence in Traulsen equipment and we know you will receive many years of utility from this equipment.

All Traulsen units are placed on a permanent record file with the service department. In the event of any future questions you may have, please refer to the model and serial number found on the name tag affixed to the unit. Should you need service, however, call us on our toll free number, 800-825-8220 between 7:30 am and 4:30 pm CST, Monday thru Friday. It is our pleasure to help and assist you in every possible way.

## **INSTALLER**

**COMPLETE THE FOLLOWING INFORMATION PRIOR TO UNIT INSTALLATION**

INITIAL START DATE: \_\_\_\_\_ SERIAL NO. \_\_\_\_\_

MODEL TYPE: \_\_\_\_\_

COMPANY/INDIVIDUAL NAME: \_\_\_\_\_

INSTALLER: \_\_\_\_\_

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FORT WORTH, TX.

SERIAL VOLTS	MODEL Hz	PH	
TOTAL CURRENT	AMPS		
MINIMUM CIRCUIT	AMPS		
MAXIMUM OVERCURRENT PROTECTION			AMPS
LIGHTS	WATTS		
HEATERS	AMPS		
REFRIGERANT DESIGN PRESSURE		TYPE HIGH	OZ LOW
REFRIGERANT DESIGN PRESSURE		TYPE HIGH	OZ LOW

370-60294-00 REV (A)



## I. THE SERIAL TAG

The serial tag is a permanently affixed sticker on which is recorded vital electrical and refrigeration data about your Traulsen product, as well as the model and serial number. This tag is located in the upper right interior compartment on all reach-in/pass-thru and roll-in/roll-thru refrigerator, freezer and dual-temp models. For hot food models, this tag is located on the top of the unit behind the louvers to protect it from the heat.

### READING THE SERIAL TAG

- Serial = The permanent ID# of your Traulsen
- Model = The model # of your Traulsen
- Volts = Voltage
- Hz = Cycle
- PH = Phase
- Total Current = Maximum amp draw
- Minimum Circuit = Minimum circuit ampacity
- Lights = Light wattage
- Heaters = Heater amperage (Hot Food units only)
- Refrigerant = Refrigerant type used
- Design Pressure = High & low side operating pressures and refrigerant charge
- Agency Labels = Designates agency listings

## II. RECEIPT INSPECTION

All Traulsen products are factory tested for performance and are free from defects when shipped. The utmost care has been taken in crating this product to protect against damage in transit. All interior fittings have been carefully secured and the legs or casters are boxed and strapped inside to prevent damage. Door keys will be attached to the handle with a nylon strip. The handle is protected by an easily removable nylon netting.

You should carefully inspect your Traulsen unit for damage during delivery. If damage is detected, you should save all the crating materials and make note on the carrier's Bill Of Lading describing this. A freight claim should be filed immediately. If damage is subsequently noted during or immediately after installation, contact the respective carrier and file a freight claim. Under no condition may a damaged unit be returned to Traulsen without first obtaining written permission (return authorization).

## III. INSTALLATION

### III. a - LOCATION:

Select a proper location for your Traulsen unit, away from extreme heat or cold. Allow enough clearance between the unit and the side wall in order to make use of the door stay open feature at 120° (self-closing feature operates up to 90°). The door(s) must be able to open a minimum of 90° in order to make use of the maximum clear door width available.

### III. b - PACKAGING:

All Traulsen units are shipped from the factory bolted to a sturdy wooden pallet and packaged in a durable cardboard container. The carton is attached to the wooden skid with the use of large staples. These should first be removed to avoid scratching the unit when lifting off the crate.

Most exterior stainless steel surfaces have a protective vinyl covering to prevent scratching during manufacturing, shipping and installation. After the unit is installed in place of service, remove and discard the covering from all surfaces.

To remove the wooden pallet, first if at all possible, we suggest that the cabinet remain bolted to the pallet during all transportation to the point of final installation. The bolts can then be removed with a 3/4" socket wrench. Avoid laying the unit on its front, side or back for removal of the pallet.

**NOTE:** Traulsen does not recommend laying the unit down on its front, side or back. However, if you must please be certain to allow the unit to remain in an upright position afterwards for 24 hours before plugging it in so that the compressor oils and refrigerant may settle.

Roll-Thru models also include special interior wood bracing, intended to protect the cabinet during shipment. This bracing should under no circumstances be removed prior to the unit being installed in its final location.

## III. INSTALLATION (continued)

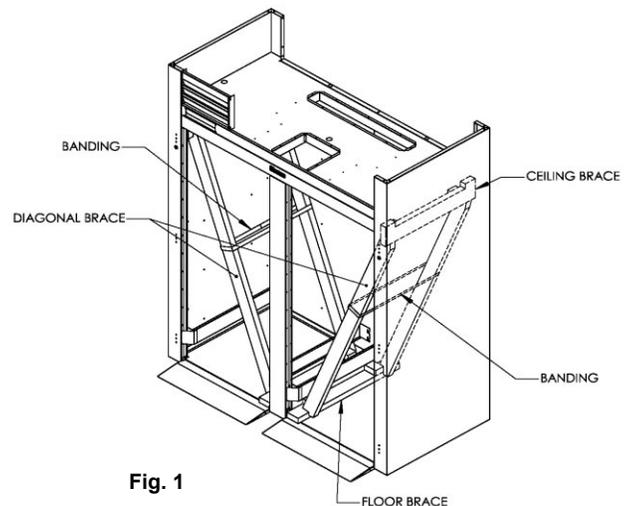
### III. b - PACKAGING (cont'd):

**WARNING:** Read and review these instructions, in their entirety, **BEFORE** attempting to disassemble and remove the interior bracing. If either of the diagonal or upper ceiling braces are dropped, they could cause personal injury or damage to the equipment.

To disassemble the bracing, first open the doors and carefully remove the banding that holds the two diagonal braces together.

**WARNING:** The diagonal braces will now be loose and can fall out of position and possibly permit the ceiling corner brace to fall.

Carefully remove one diagonal brace while supporting the ceiling corner brace, so that it does not fall (see figure 1). Next, remove the ceiling brace, the remaining diagonal brace, and lastly the floor brace - then discard. Repeat as necessary for each section of the unit.



### III. c - INSTALLING LEGS OR CASTERS:

6" high stainless steel legs are supplied standard for all Traulsen reach-in and pass-thru units. Casters in lieu of legs are available as an optional accessory for the same models. These are shipped from the factory packed inside a cardboard box which is strapped to one of the shelves. Remove the nylon strap and open the box, it should contain either four (4) legs or four (4) casters and sixteen (16) bolts.

**WARNING: THE CABINET MUST BE BLOCKED AND STABLE BEFORE INSTALLING LEGS OR CASTERS.**

To install the legs or casters, first raise and block the reach-in a minimum of 7" from the floor. For installing legs, thread the legs into the threaded holes on the bottom of the cabinet (see figure 2). Be certain that all legs are tightly secured (legs and casters should be tightened to 300 inch/pounds, max). When the unit is set in its final position, it is important for proper operation that the unit be level. The legs are adjustable for this purpose, turn the bottom of the leg counter-clockwise to raise it, clockwise to lower it. Level the unit from front to back as well as side to side in this manner, using a level placed in the bottom of the cabinet.

### III. INSTALLATION (continued)

#### III. c - INSTALLING LEGS OR CASTERS (cont'd):

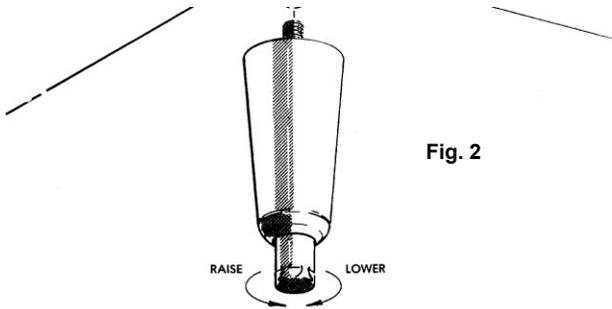


Fig. 2

Please note that Traulsen units are not designed to be moved while on legs. If the unit requires moving, a pallet jack or forklift should be used to prevent damage. For installing casters, the casters are "plate" type, and require the use of four (4) bolts each to secure them firmly to the cabinet bottom at each corner (see figure 3). The caster bolts are tightened using a 1/2" socket wrench.

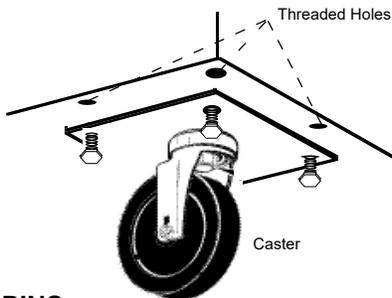


Fig. 3

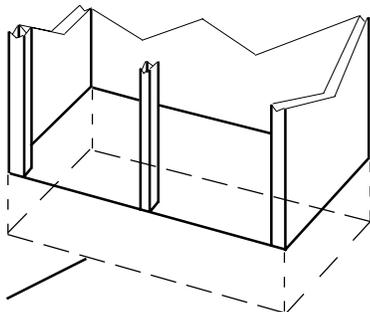
#### III. d - SHELF PINS:

The unit is supplied with shelves and shelf pins installed. Check all shelf pins to assure they are tightened down as they may have come loose during shipping. Rotate the pins clockwise until they are secured against the side of the cabinet.

#### III. e - ROLL-IN MODEL INSTALLATION:

Roll-In cabinets set on the floor require the floor area to be flat and level. In addition, after the cabinet is set in place, sealant should be used around the perimeter of the base to comply with National Sanitation Foundation requirements (see figure 4). After sealing the unit, the enclosed ramp should then be installed.

##### SEALING BASE OF ROLL-IN MODELS



A SEALANT MUST BE USED AROUND THE PERIMETER OF THE BASE OF CABINET AS SHOWN TO FULLY COMPLY WITH SANITARY REQUIREMENTS.

A RECOMMENDED SEALANT IS DOW CORNING SILASTIC RTV #732

Fig. 4

A stainless steel threshold ramp(s) is included to

#### III. e - ROLL-IN MODEL INSTALLATION (cont'd):

facilitate rolling in racks. It is shipped wrapped in brown paper and secured to the rack guides inside the cabinet. To secure it in place, remove the two thumb screws in the breaker strip near the bottom door opening. Next, loosen the thumb screws located along the floor at the threshold. Place the ramp(s) on top of the loosened thumb screws and secure tabs on each end to breaker strips with thumb screws previously removed. After installing the ramp(s), it too should be sealed to the floor.

Bumper strips are secured to the back of Roll-In models with thumb screws. Loosen these and make them finger tight to conform with the requirements of the National Sanitation Foundation (NSF).

#### III. f - ATTACHING DOUBLE DEPTH UNITS TOGETHER:

Double depth roll-in/roll-thru units are shipped as two separate components which must be attached together at the jobsite. To accomplish this, first, place the front and rear cabinets in close proximity to each other being careful to align the drain from the front of the rear unit to the drain of the front unit. It will be necessary to level both units together at this time.

Next, using two pipe clamps, pull the units together (see figure 5). Install the covers over the gap formed between the units. From inside the cabinets, using the screws provided, install the breaker strips using the strip as a template.

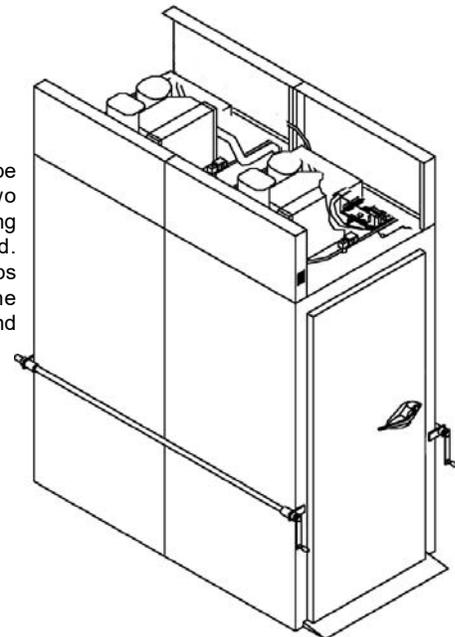


Fig. 5 - Using two pipe clamps, pull the two units together and using the screws provided. Align the breaker strips as a template for the screw pattern inside and outside the cabinet.

#### III. g - INSTALLING THE CONDENSATE EVAPORATOR:

A condensate evaporator is normally supplied on all self-contained models (remote models require provision of either a floor drain or an optional electric condensate evaporator). On those models supplied with a top-mounted evaporator coil compartment, the condensate evaporator is also secured to the top of the cabinet. Check that the condensate pan is properly located underneath the drain tube.

### III. INSTALLATION (continued)

#### III. g - INSTALLING THE CONDENSATE EVAP (cont'd):

**NOTE:** Some models, such as single section dual-temperature refrigerator/freezers, are supplied with a bottom-mounted electric condensate evaporator. This is shipped in a cardboard carton secured to the cabinet interior, and must be **PROPERLY** installed prior to use (see instructions supplied with the condensate evaporator).

After the cabinet has been uncrated and the legs/casters attached, you must install the bottom-mounted electric condensate evaporator. Locate the four (4) holes on the exterior bottom towards the rear of the cabinet. Then, using the four (4) plastic push pins provided, attach the mounting rails to the cabinet bottom (the end flange is to be up and be facing towards the cabinet rear). Next, place the heater into the heater bracket (note the enclosed springs are only to be used when the heater is placed on the floor). Slide heater and bracket into the mounting rails. Plug the supplied cord into both the heater on one end, and the electrical outlet provided on the cabinet exterior bottom towards the front (see figure 6). Screw the "U-Trap" on to the drain line located on the rear of the cabinet and then screw the drain extension into the "U-Trap."

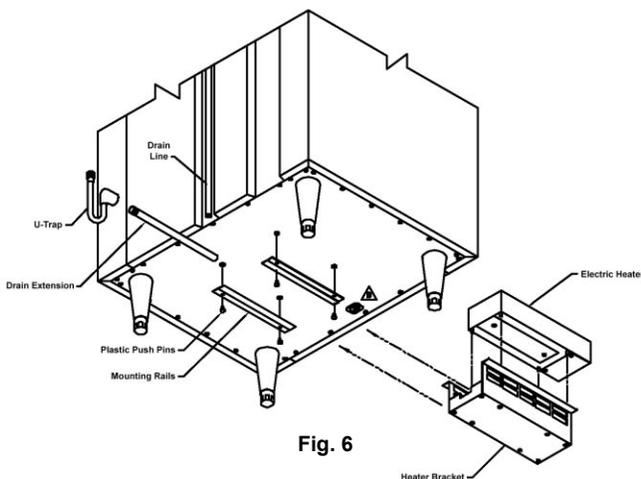


Fig. 6

**NOTE:** The use of the "U-TRAP" supplied is required. Failure to use this component may allow cold air to migrate down the drain line, resulting in condensation on the rear of the cabinet.

A remote model is normally supplied configured for condensate to be run to a floor drain unless purchased with a condensate evaporator. The installer is responsible for making the required extension to the floor drain in accordance with good practice and local regulations.

#### III. h - REMOTE INSTALLATION:

Remote models are supplied without compressors, solenoid valves, etc. The correct voltage, amp listing and refrigerant are listed on the units serial tag. It is the responsibility of the installer to specify and supply the correct size compressor(s) based upon this information and on-site requirements. Refrigerant line installation

#### III. h - REMOTE INSTALLATION (cont'd):

must be done in accordance with good practice and local regulations. See section "III. g" for information concerning condensate removal for remote models.

#### III. i - CORD & PLUG:

Most self-contained models are supplied with a cord & plug attached. It is shipped coiled at the top of the cabinet, secured by a nylon strip. For your safety and protection, all units supplied with a cord and plug include a special three-prong grounding plug on the service cord. Select only a dedicated electrical outlet with grounding plug for power source. **NOTE:** Do not under any circumstances, cut or remove the round grounding prong from the plug, or use an extension cord.

#### III. j - POWER SUPPLY:

The supply voltage should be checked prior to connection to be certain that proper voltage for the cabinet wiring is available (refer to the serial tag to determine correct unit voltage). Make connections in accordance with local electrical codes. Use qualified electricians.

Use of a separate, dedicated circuit is required. Size wiring to handle indicated load and provide necessary overcurrent protector in circuit (see amperage requirements on the unit's serial tag).

#### III. k - WIRING DIAGRAM:

Refer to the wiring diagram for any service work performed on the unit. Should you require one, please contact Traulsen Service at (800) 825-8220, and provide the model and serial number of the unit involved.

#### III. l - CLEARANCE:

In order to assure optimum performance, the condensing unit of your Traulsen unit **MUST** have an adequate supply of air for cooling purposes. Therefore, the operating location must either have a minimum of 12" clearance overhead of the condensing unit or allow for unrestricted air flow at the back of the unit. Clearance of at least 12" above is required in order to perform certain maintenance tasks.

## IV. OPERATION

### IV. a - REFRIGERATORS:

Both refrigerators and freezers do not require manual defrosting. During normal operation, a refrigerator continuously circulates above freezing cabinet air through the coil. A compressor "OFF" cycle occurs every hour to melt any frost which may accumulate on the coil during the compressor "ON" cycle. The control will read "dEF" when this occurs and the evaporator fans will continue to operate. With standard holding refrigerators, high relative humidity is also maintained to prevent dehydration of stored product.

### IV. b - FREEZERS:

During normal operation, a freezer continuously circulates below freezing cabinet air through the coil. The coil requires a periodic defrosting for proper operation. This is accomplished by an automatic, time activated, temperature/time terminated, defrost program. The controller is preset at the factory for six equally spaced defrost cycles within each 24-hour period.

At the start of a freezer defrost cycle, both the compressor and evaporator fans are OFF. The INTELA-TRAUL® control will read "dEF" (see figure 7). The electric heater (attached to the coil) is energized. When a temperature device affixed to the coil senses 70°F (models with electric defrost), the coil is fully defrosted and the compressor operation is resumed, defrost heaters are automatically turned off. The coil fans are delayed from starting at the termination of a defrost cycle. Fan operation is automatically resumed, or they can also be started by a time or temp delay (whichever comes first). In case of temp delay, it uses the same coil sensor and starts at 32°F. The total refrigeration system operation is then resumed.

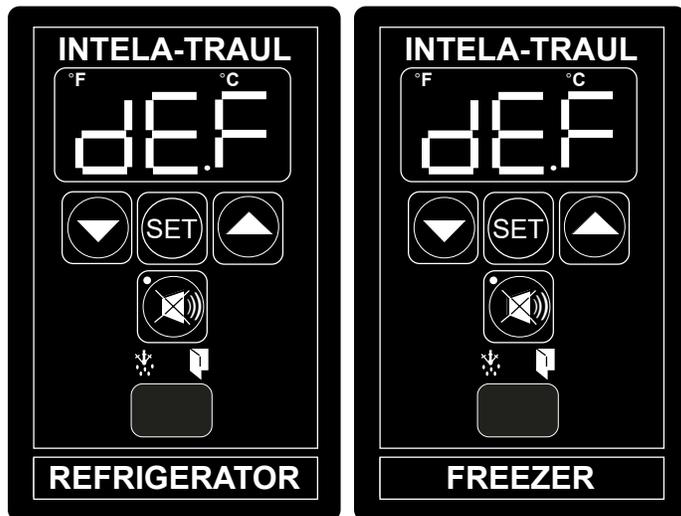


Fig. 7

During freezer defrost operation, heat is confined to the coil enclosure to prevent any significant rise in temperature within the food zone. The fan delay controls function upon termination of a defrost cycle is two-fold. First, to prevent blowing warm air into the food storage area. Second, to prevent any condensation on the defrost coil from being blown into the food storage area.

The INTELA-TRAUL® control is set from the factory to terminate defrost at 20 minutes in the event of a sensor failure. This setting should never be tampered with, without first consulting the factory.

### IV. c- HOT FOOD CABINETS:

Hot food cabinet operation is governed by the INTELA-TRAUL control, which controls the ON/OFF operation of the strip heaters. The control can be set to maintain any operational temperature between 140 - 180° F (in 5°F increments).

Hot food cabinets are delivered from the factory with the control set to the "OFF" position. Follow the instructions in section "VII. t" to get started.

**NOTE:** A vent is included at the top of all hot food cabinets. The vent opening is factory set and secured for best position. Be certain to make sure this vent is kept free of any obstruction.

## V. CARE & MAINTENANCE

### WARNING

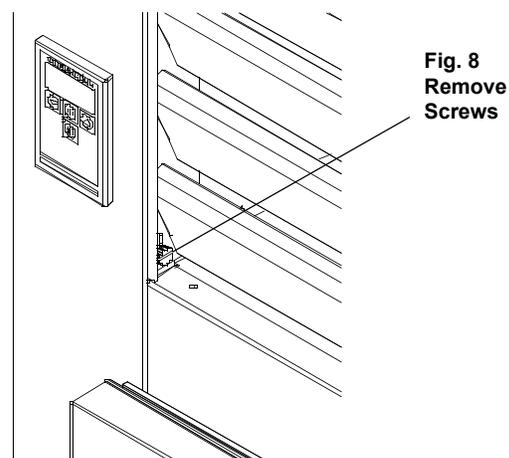
**DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING ANY PARTS OF THE UNIT**

### V. a - CLEANING THE CONDENSER:

The most important thing you can do to insure a long, reliable service life for your Traulsen is to regularly clean the condenser coil.

The condensing unit requires regularly scheduled cleaning to keep the finned condenser clean of lint and dust accumulation. The INTELA-TRAUL control will notify you through a "CLN-FIL" message when cleaning is necessary (see page 8). Keeping the condenser clean allows the cabinet to operate more efficiently and use less energy.

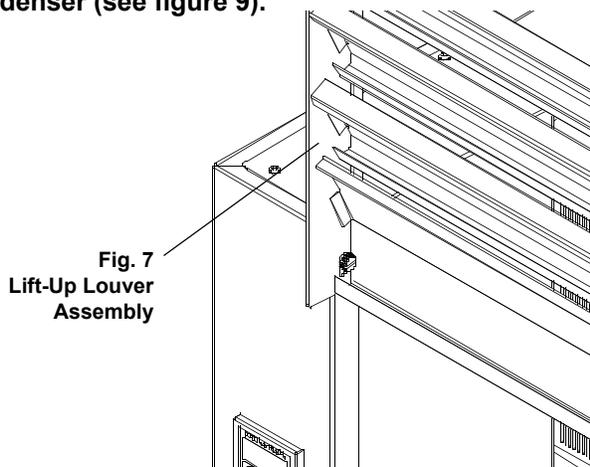
To clean the condenser, first disconnect electrical power to the cabinet and lift up the front louver assembly. To lift this, remove the two screws located on both sides at the bottom of the louver assembly (see figure 8).



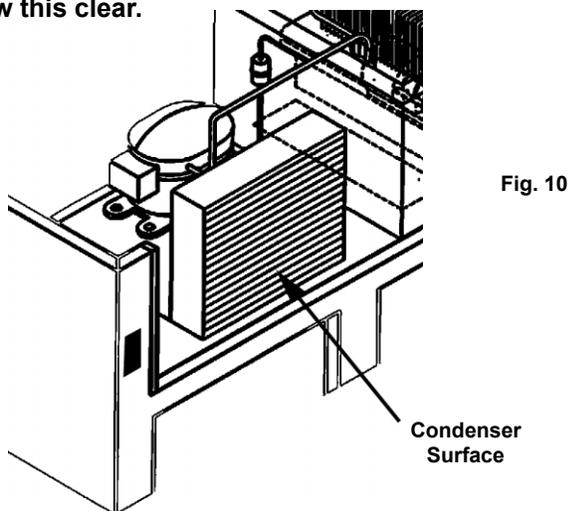
## V. CARE & MAINTENANCE (cont'd)

### V. a - CLEANING THE CONDENSER:

Once the screws are removed, the panel can be pivoted upwards allowing full access to the front facing condenser (see figure 9).



Vacuum or brush any dirt, lint or dust from the finned condenser coil, the compressor and other cooling system parts (see figure 10). If significant dirt is clogging the condenser fins, use compressed air to blow this clear.



Lower louver assembly and replace the screws to hold it in place.

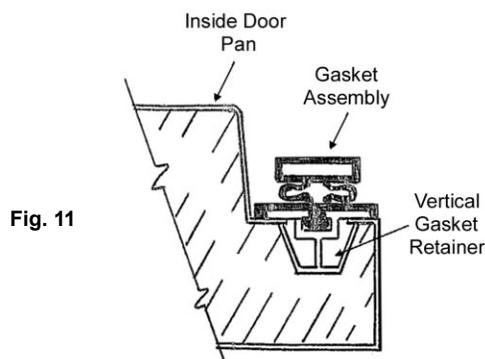
### V. b - HINGE REPLACEMENT:

Both the door and hinge can be easily removed from the cabinet. To remove the door, remove the plug at the bottom of the top hinge. Inside the hinge there is a small screw which secures the door in place. Remove this with a flat head screwdriver and the door can then be lifted off the hinge. To remove the door portion of the hinge from the door, lift off the hinge cover and then remove the three Phillips head screws which secure the hinge in place on the door. To remove the cabinet portion of the hinge, remove the three Phillips head screws which hold it in place. On solid door units, the top hinge(s) contains a microswitch for controlling the interior lighting.

To reassemble the hinge reverse the previous procedure.

### V. c - REPLACING THE GASKETS:

To remove the gasket to be replaced, grasp it firmly by one corner and pull it out. Before attempting to install a new gasket, both the unit and the gasket itself must be at room temperature. Insert the four corners first by using a rubber mallet (or hammer with a block of wood). After the corners are properly inserted, work your way towards the center from both ends by gently hitting with a mallet until the gasket is completely seated in place (see figure 11 for proper gasket placement).



NOTE: The gasket may appear too large, but if it is installed as indicated above it will slip into place.

### V. d - CLEANING THE EXTERIOR:

Exterior stainless steel should be cleaned with warm water, mild soap and a soft cloth. Apply with a dampened cloth and wipe in the direction of the metal grain.

Avoid the use of strong detergents and gritty, abrasive cleaners as they may tend to mar and scratch the surface. Do NOT use cleansers containing chlorine, this may promote corrosion of the stainless steel.

Care should also be taken to avoid splashing the unit with water, containing chlorinated cleansers, when mopping the floor around the unit.

For stubborn odor spills, use baking soda and water (mixed to a 1 TBSP baking soda to 1 pint water ratio).

### V. e - CLEANING THE INTERIOR:

For cleaning both stainless steel and anodized aluminum interiors, the use of baking soda as described in section "V. d" is recommended. Use on breaker strips as well as door gaskets. All interior fittings are removable without tools to facilitate cleaning.

### V. f - ADJUSTING THE SHELVES:

For shelves mounted on pins, first select the desired location and remove the white plastic covers in the interior back and sides by rotating them counter-clockwise. Remove the shelf pins by rotating them counter-clockwise. Install the pins in the desired location by rotating clockwise. Make sure the pin is securely tightened down. Do not over tighten. Slide the shelf into its new position, and replace the white plastic covers into the holes vacated by the shelf pins.

## V. CARE & MAINTENANCE (cont'd)

### V. g - REPLACING THE LIGHT BULB:

All Traulsen R & A Series models are supplied with incandescent lighting unless optional fluorescent lighting was ordered (except for sliding glass door models for which fluorescent lights are supplied standard).

The bulb is a 115 volt/40 watt, T-6½ intermediate clear refrigerator lamp. It is mounted at the top front of the cabinet at the center, and is located behind a plastic light cover on refrigerator and freezer model.

Heated units (RHF/AHF/RIH/AIH/RDH/ADH/RIDH/AIDH) are equipped with a similar type bulb, however this is shatterproof because these models do not include a plastic light cover.

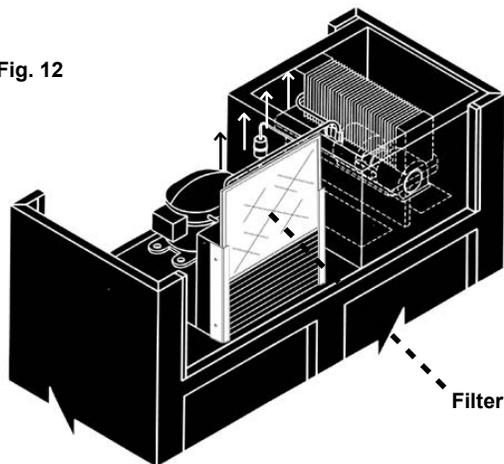
To replace the bulb, first remove the light cover (if so equipped). This can be accomplished by squeezing it together on both sides until it comes free. Replace the light bulb, then squeeze both sides of the light cover together and replace in its original position.

### V. h - REPLACING THE OPTIONAL CONDENSER FILTER:

Some Traulsen R & A Series models are supplied with an optional filter screen for the condenser coil. This is located behind the louver assembly, and must be cleaned at least once a month, or more frequently if needed, to insure proper equipment operation.

To clean the condenser filter, first disconnect electrical power to the cabinet and lift up the front louver assembly. To lift this, remove the two screws located on both sides at the bottom of the louver assembly. The filter is located on the face of the condenser coil, and can simply lift up and away for cleaning (see figure 12).

Fig. 12



## VI. OTHER

### VI. a - SERVICE INFORMATION:

Before calling for service, please check the following:

- Is the electrical cord plugged in?
- Is the fuse OK or circuit breaker on?
- Is the power switch "ON"?

If after checking the above items and the unit is still not operating properly, please contact an authorized Traulsen service agent. A complete list of authorized service agents was provided along with your Traulsen unit. If you cannot locate this, you may also obtain the name of a service agent from the Service/Contact page of our website: [www.traulsen.com](http://www.traulsen.com).

If service is not satisfactory, please contact our in-house service department at:

Traulsen  
4401 Blue Mound Road  
Fort Worth, TX 76106  
(800) 825-8220

Traulsen reserves the right to change specifications or discontinue models without notice.

### VI. b - SPARE PARTS:

Spare or replacement parts may be obtained through a parts supplier or one of our authorized service agents. A complete list of authorized service agents accompanies this manual and is also posted on our company's official website @ [www.traulsen.com](http://www.traulsen.com).

### VI. c - WARRANTY REGISTRATION:

For your convenience, the warranties on your new Traulsen unit may be registered with us on-line at [www.traulsen.com](http://www.traulsen.com), or by completing and returning the warranty card included along with the unit. To do so on-line, from the menu at the top of the home page, first select PRODUCT SUPPORT. Upon loading that page, select WARRANTY INFO from the menu on the left. A link to the WARRANTY REGISTRATION FORM should appear. Click on this to load the form, complete the required information, and hit the SUBMIT button.

## VII. The INTELA-TRAUL® Control System

Your new Traulsen Refrigerator, Freezer or Hot Food cabinet is equipped with a state-of-the-art electronic microprocessor INTELA-TRAUL® control, which precisely regulates operation and provides alarms when problems occur. It is supplied from the factory completely ready for use and requires no adjustment (except Hot Food units which are set in the "OFF" position, see page for 20 for more info), but without the audible alarms activated. See pages 9 thru 20 for more information.



### VII. a - INTELA-TRAUL® CONTROL FEATURES:

#### 1- Internal Time Clock

- Eliminates defrost time clock (refrigerator and freezer models only).
- Defrost cycle can be quickly adjusted to suit individual location and use.
- Must be set at power-up.
- Will automatically update for Daylight Savings Time.

**2- Water Resistant Housing** - The face of the control is water resistant to provide for protection during cleaning.

#### 3- Parameter/Service Levels

- See "Customer / Service Parameters" on Page 11.

**4- Defrost Lockouts** - See "Setting Defrost Lockouts" on page 17 (refrigerator and freezer models only).

- Customers can set up to 4 different defrost lockout periods. The lockout prevents the unit from going into a defrost cycle during peak kitchen use. **Note: The 24-hour clock must be set for this feature to operate correctly.**

**5- Communication Ability** - A NAFEM Data Protocol (NDP) compliant RS-485 serial communications port is available to interface with data collection software (by others). All INTELA-TRAUL equipped models are capable of communicating within a NAFEM Data Protocol network if provided with an optional Gateway Hub (available from Traulsen). The actual communications software is available from a number of third party software vendors.

**6- Anti-Condensate Door Perimeter Heater Control** (refrigerator and freezer models only)

"No-Sweat" feature is an energy savings system that allows the customer to set the percent of time for the door heater as needed for the prevailing ambient conditions (from 0 - 100% of the time each day). It is used to prevent condensation from forming around the perimeter of the doors.

#### 7- Alarms (See the following pages for explanations)

- High Cabinet Air Temperature
- Low Cabinet Air Temperature
- Loss Of Power
- Sensor Failure
- System Leak (refrigerator, freezer & dual-temp models only)\*
- Door Open\*\*
- Clean Condenser (refrigerator and freezer models only)\*



**HI/LO-TEMPERATURE  
ALARMS**

**DOOR OPEN  
ALARM**

**POWER LOSS  
ALARM**

**CLEAN CONDENSER  
NOTIFICATION**

#### 8- Display Features

- Door Open Icon
- 3-Digit LED Display
- Defrost in Progress Icon
- Fahrenheit or Celsius Temperature Scale In Use

\* Not Available On Remote Models

\*\* Not Available On Fire-Rated Or Sliding Glass Door Models

## VII. INTELA-TRAUL® (continued)

### VII. a - ALARM EXPLANATIONS:

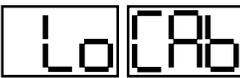
\*NOTE: Explanation of alarms assume the audible alarm style is set at a 3-second burst or a continuous audible alarm. References to the audible alarm do not apply if the audible alarm style is set to OFF (Refer to page 19 for setting the audible alarm style).



**High Cabinet Air Temperature:** The audible alarm\* will sound and the display will read **HI CAB** when the temperature inside the cabinet rises above a pre-programmed limit. The limit is determined by the type of unit being operated (i.e.: refrigerator/freezer). To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will continue to display until the cabinet air temperature falls below the limit. If the temperature does not fall below the limit within 5 minutes, the audible alarm\* will sound again and an additional Call Service message will display.

#### POSSIBLE CAUSES (for Refrigerator & Freezer Models):

- Doors open for extended periods of time.
- Large amounts of hot product placed inside the cabinet.
- Condenser coil dirty.



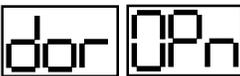
**Low Cabinet Air Temperature:** The audible alarm\* will sound and the display will read **Lo CAB** when the temperature inside the cabinet falls below a pre-programmed limit. The limit is determined by the type of unit being operated (i.e.: refrigerator/freezer). To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will continue to display until the cabinet air temperature rises above the limit. If the temperature does not rise above the limit within 5 minutes, the audible alarm\* will sound again and an additional Call Service message will display.

#### POSSIBLE CAUSES (for Refrigerator & Freezer Models):

- No product in unit.
- Failed sensors.



**Loss Of Power:** The audible alarm\* will sound and the display will read Electrical Loss, when the unit regains power after an outage. To turn off the audible alarm\* and/or clear the visual text, press the alarm cancel button.



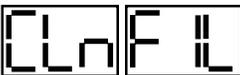
**Door Open:** The display will read Door Open and the audible alarm will sound, after the door or doors have been open for 15 minutes. To turn off the alarm, **close the door** or press the alarm cancel button. If the door remains open for an additional 5 minutes, the audible alarm\* will sound again (n/a on fire-rated and sliding glass door models).



**System Leak:** The audible alarm\* will sound and the display will read Call Service, when the control detects a leak in the refrigeration system. To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will remain until a service technician has repaired the unit. If the condition remains for 24 hours, the audible alarm\* will sound again.

#### POSSIBLE CAUSES:

- Low refrigerant charge.
- Discharge sensor has failed low.



**CONDENSERCLEAN™:** The audible alarm\* will sound and the display will read Clean Filter, when the operating pressures and temperatures exceed a safe operating range. As the load on the condenser decreases, the alarm will turn off by itself. As the pressures on the condenser continues to rise, the audible alarm\* will stay on for longer periods of time. To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will remain until the filter/condenser has been cleaned. If the condition remains for 24 hours, the audible alarm\* will sound again and visual display will read Call Service.

#### POSSIBLE CAUSES:

- Inadequate air flow through condenser unit.
- Discharge sensor has failed high.



**Sensor Failures:** The audible alarm\* will sound and the display will read Sensor Failure Call Service, when any of the unit sensors fail to operate. To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will remain until the sensor has been replaced.

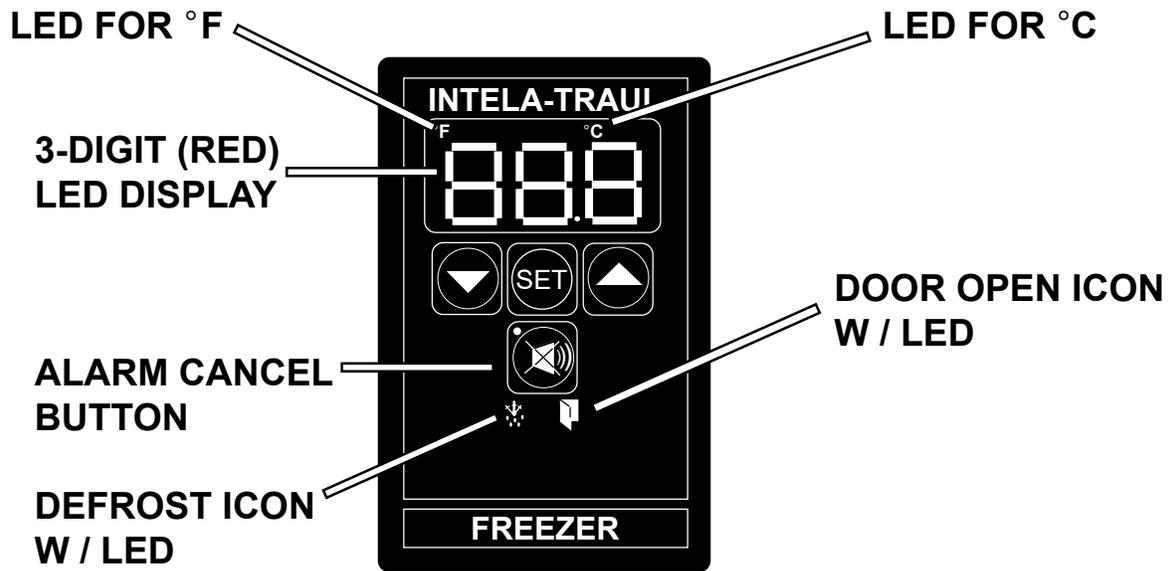


Depending on the function of the sensor, the audible alarm\* will sound again in either 5 minutes or 24 hours.

\*Not available on remote models.

## VII. INTELA-TRAUL® (continued)

### VII. c - CONTROL PANEL:



## VII. INTELA-TRAUL® (continued)

### VII. d - NOTES TO THE USER:

You only have 20-30 seconds between button pushes. If you take longer than 30 seconds, the controller will revert back to displaying the cabinet temperature. If you enter the wrong security code, the controller will revert back to displaying the cabinet temperature. You can exit the parameters at any time by pressing the alarm cancel button or by waiting 20-30 seconds.

### VII. f - ENTER THE CUSTOMER ACCESS: This is required to set any of the control parameters

Use the security code 0, A, 1  and the following instructions:

Press the set button  . The display will read  Customer/Service Access.

Press the set button  .

The display will show three zeros with the left zero flashing   
↑

Press the set button  .

The display will show three zeros with the center zero flashing   
↑

Press the down arrow key  to sequence through F, E, d, C, b, A, 9, 8, 7,...etc.

When you reach A press set  .

The display will show zero, A, zero with the right zero flashing   
↑

Press the up arrow key  to sequence through 1, 2, 3, 4, 5, 6, 7, 8, 9, A, b,...etc.

When you reach 1 press set  .

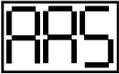
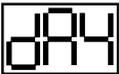
The display will read  Thermostat Set Point High. Press  to view and  again to exit.

You are now in the **CUSTOMER / SERVICE PARAMETERS.**

## VII. INTELA-TRAUL® (continued)

### VII. f - CUSTOMER SERVICE PARAMETERS:

Listed below are the available parameters in the order they appear, using the down arrow key on the controller. You can use either the up or down arrow keys to scroll through the options.

	Thermostat Set Point High*		Defrost Lockout 2
	Thermostat Set Point Low		Defrost Lockout 3
	Temperature Scale*		Defrost Lockout 4
	Audible Alarm Style*		Dew Point Compensation Factor*
	Time (24-hour clock)*		Room Temperature Offset
	Date (month - day - year)*		Evaporator Coil Sensor
	Daylight Savings *		Discharge Line Sensor
	Defrost Lockout 1		Start Manual Defrost
	Cabinet Air Sensor Temp		

\*Available on Hot Food units.

### VII. g - ADJUSTING THE THERMOSTAT SET POINT HIGH:

This parameter sets the high point of the desired cabinet temperature range. Typically, freezers will range from -4° F to 0° F (-19° C to -18° C) and refrigerators will range from 36° F to 40° F (2° C to 4° C) for this parameter setting. This parameter is preset at the factory and does not have to be adjusted unless the customer chooses to do so. Note: Set Point Low and Set Point High **cannot** be set to the same temperature. There will be at least 1-2 degree difference between the two settings.

Follow the instructions to enter the customer access code on page 11. When the control

display reads  Thermostat Set Point High. Press the set button .

Use the arrow keys   to adjust the temperature to your desired setting.

When the display shows the temperature you want press the set button .

The display will then read  Thermostat Set Point High.

You can use the up or down arrow keys  

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. h - ADJUSTING THE THERMOSTAT SET POINT LOW:

This parameter sets the low point of the desired cabinet temperature range. Typically, freezers will range from -6° F to -4° F (-21° C to -20° C) and refrigerators will range from 32° F to 34° F ( 0° C to 1° C) for this parameter setting. This parameter is preset at the factory and does not have to be adjusted unless the customer chooses to do so. Note: Set Point Low and Set Point High **cannot** be set to the same temperature. There will be at least 1-2 degree difference between the two settings.

Follow the instructions to enter the customer access code on page 11. When the control

displays  Thermostat Set High, press the down arrow key  until the control display reads  Thermostat Set Point Low. Press the set button .

Use the arrow keys   to adjust the temperature to your desired setting.

When the display shows the temperature you want press the set button .

The display will then read  Thermostat Set Point High.

You can use the up or down arrow keys to scroll to the next parameter  .

or press the alarm cancel button to exit .

### VII. i - CHANGING THE TEMPERATURE SCALE:

The temperature scale determines if the temperature displayed will be in degrees Fahrenheit or degrees Celsius.

Follow the instructions to enter the customer access code on page 11. When the control

displays  Thermostat Set High, press the down arrow key  until the control display reads  Temperature Scale. Press the set button .

The display will start with the current setting either  for degrees Fahrenheit or  for degrees Celsius. Use the arrow keys   to toggle between the options.

When the display shows the scale you want press the set button .

The display will then read  Thermostat Set Point High.

You can use the up or down arrow keys   to scroll to the next parameter

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. j - SETTING THE 24-HOUR CLOCK:

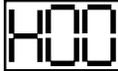
The internal timeclock must be set in order for the data storage memory to correctly log events and to allow any defrost lockout to occur at the correct time of day. If the clock is not set, the control assumes the time is 12 a.m. at the time power is supplied to the unit. The hours on a 24-hour time clock read the following way:

H01 = 1:00 a.m.	H07 = 7:00 a.m.	H13 = 1:00 p.m.	H19 = 7:00 p.m.
H02 = 2:00 a.m.	H08 = 8:00 a.m.	H14 = 2:00 p.m.	H20 = 8:00 p.m.
H03 = 3:00 a.m.	H09 = 9:00 a.m.	H15 = 3:00 p.m.	H21 = 9:00 p.m.
H04 = 4:00 a.m.	H10 = 10:00 a.m.	H16 = 4:00 p.m.	H22 = 10:00 p.m.
H05 = 5:00 a.m.	H11 = 11:00 a.m.	H17 = 5:00 p.m.	H23 = 11:00 p.m.
H06 = 6:00 a.m.	H12 = 12:00 p.m.	H18 = 6:00 p.m.	H24 = 12:00 a.m.

Follow the instructions to enter the customer access code on page 11. When the control

displays  Thermostat Set High, press the down arrow key  until the control

display reads  Clock. Press the set button .

The display will show  Hours. The right two numbers will be flashing.

Use the arrow keys   to set the hour.

When the correct hour is displayed, press the set button .

The display will show  Minutes. The right two numbers will be flashing.

Use the arrow keys to set the minutes  .

When the correct minutes are displayed, press the set button .

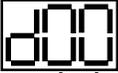
The display will then read  Thermostat Set Point High.

You can use the up or down arrow keys   to scroll to the next parameter

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. k - SETTING THE DATE:

The date must be set in order for the data storage memory to correctly log events. Follow the instructions to enter the customer access code on page 11. When the control displays  Thermostat Set Point High, press the down arrow key  until the control display reads  Date. Press the set button . The display will show  (year). The right two numbers will be flashing. Press the arrow keys   to set the year. When the correct year is displayed, press the set button . The display will show  (month). The right two numbers will be flashing. Use the arrow keys   to set the month. When the correct month is displayed, press the set button . The display will show  (day). The right two numbers will be flashing. Press the arrow keys   to set the day. When the correct day is displayed, press the set button . The display will then read  Thermostat Set Point High. You can use the up or down arrow keys   to scroll to the next parameter, press the alarm cancel button to exit .

### VII. l - SETTING DAYLIGHT SAVINGS TIME:

This parameter is preset at the factory to automatically adjust the 24-hour clock for Daylight Savings Time. Follow the instructions to enter the customer access code on page 11. When the control displays  Thermostat Set Point High, press the down arrow key  until the display reads  Daylight Savings Time. Press the set button . The display will show  Daylight Savings Time (Yes, automatically adjust for Daylight Savings Time). For "YES," press the set button , for "NO" press the up or down arrow key  . The display will read  Daylight Savings Time (no). Press the set button . The display will read  Thermostat Set Point High. You can press the the up or down arrow keys   to scroll to the next parameter or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. m - STARTING A MANUAL DEFROST CYCLE:

This parameter allows a service technician to start a defrost cycle at any time. This parameter will override any lockout settings.

Follow the instructions to enter the customer access code on page 11. When the control

displays  Thermostat Set High, press the down arrow key  until the control display reads  Start Manual Defrost.

Press the set button .

The display will show  (OFF).

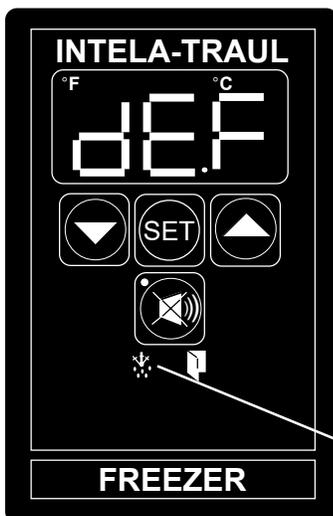
Press either arrow key   (ON).

The display will show .

Press the set button .

The display will then read  and start the defrost cycle immediately.

### Reach-In/Roll-In Models



The defrost icon will be lit,  
and the display will read  
 when the unit is  
in defrost.

**DEFROST ICON**

**NOTE:** Traulsen refrigerator units also have an off-cycle defrost once an hour, at which time the control will read . This defrost is time terminated and can last 10 minutes (dEF will be displayed for 22-27 minutes).

## VII. INTELA-TRAUL® (continued)

### VII. n - SETTING THE DEFROST LOCKOUTS:

The defrost lockout parameters allow the customer to prevent the unit from going into a defrost cycle for two hours during a set timeframe. Customers can set up to four defrost lockout parameters. They are all programmed the same way. The parameters will be set for the time the lockout is to start. The controller automatically calculates 2 hours from that setting. The options are similar to the 24-hour clock settings and are in 30-minute increments. Each of the lockout parameters covers 6 hours of the 24-hour clock. Note: The 24-hour clock must be set for this feature to operate at the correct time of day. See “**Setting the 24-Hour Clock**” on page 14.

Sample:

OFF

020 = 2:00 a.m.

023 = 2:30 a.m.

030 = 3:00 a.m.

033 = 3:30 a.m.

040 = 4:00 a.m.

043 = 4:30 a.m.

050 = 5:00 a.m.

053 = 5:30 a.m.

060 = 6:00 a.m.

063 = 6:30 a.m.

070 = 7:00 a.m.

073 = 7:30 a.m.

080 = 8:00 a.m.

OFF

080 = 8:00 a.m.

083 = 8:30 a.m.

090 = 9:00 a.m.

093 = 9:30 a.m.

100 = 10:00 a.m.

103 = 10:30 a.m.

110 = 11:00 a.m.

113 = 11:30 a.m.

120 = 12:00 p.m.

123 = 12:30 p.m.

130 = 1:00 p.m.

133 = 1:30 p.m.

140 = 2:00 p.m.

OFF

140 = 2:00 p.m.

143 = 2:30 p.m.

150 = 3:00 p.m.

153 = 3:30 p.m.

160 = 4:00 p.m.

163 = 4:30 p.m.

170 = 5:00 p.m.

173 = 5:30 p.m.

180 = 6:00 p.m.

183 = 6:30 p.m.

190 = 7:00 p.m.

193 = 7:30 p.m.

200 = 8:00 p.m.

OFF

200 = 8:00 p.m.

203 = 8:30 p.m.

210 = 9:00 p.m.

213 = 9:30 p.m.

220 = 10:00 p.m.

223 = 10:30 p.m.

230 = 11:00 p.m.

233 = 11:30 p.m.

240\* = 12:00 a.m.

243\* = 12:30 a.m.

010 = 1:00 a.m.

013 = 1:30 a.m.

020 = 2:00 a.m.

\* Denotes not available.

A lockout cannot be programmed to start at 12:00 a.m. or 12:30 a.m. due to conflicts with other internal programs. The defrost lockouts cannot be programmed to run back-to-back. For example, if dL1 is set to 080, then a defrost cycle would be locked out from 8:00 a.m. to 10:00 a.m. Because of the dL1 setting the dL2 parameter would not let the user choose a lockout start time before 10:30 a.m. All lockouts are preset at the factory to OFF.

Follow the instructions to enter the customer access code on page 11. When the control

displays Thermostat Set High, press the down arrow key until the control the

control display reads or . Press the set button .

The display will show Off. Press the arrow keys to set the start time.

When the correct time is displayed, press the set button .

The display will then read Thermostat Set Point High.

You can press the up or down arrow keys to scroll to the next parameter

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. o - ADJUSTING THE DOOR PERIMETER HEATERS:

This parameter allows the customer to turn ON and OFF the anti-condensate door perimeter heaters. This parameter is set to the highest setting (100) at the factory so that the door heaters stay on continuously. If you choose to have the door heaters cycle on and off, lower this parameter to approximately 30. If condensation forms around the doors, increase the parameter until condensation stops. The exact setting will vary depending on ambient conditions. This feature is not available on undercounter models.

Follow the instructions to enter the customer access code on page 11. When the control displays

 Thermostat Set High, press the down arrow key  until the control display reads   
DewPoint Compensation Factor. Press the set button . Press the arrow keys   to  
adjust the factor to your desired setting. When the display shows the factor you want press the set  
button . The display will then read  Thermostat Set Point High. You can use the up or  
down arrow keys   to scroll to the next parameter or press the alarm cancel button to exit  
.

### VII. p - ADJUSTING THE ROOM TEMPERATURE OFFSET:

The room temperature offset parameter allows a service technician or end user the ability to have the display show a temperature that is within three degrees of the actual temperature being read by the cabinet air sensor. This allows for continuity of reading between different temperature reading devices. (i.e.: thermistor Vs thermocouple Vs handheld thermometer) This parameter is preset at the factory to "0" or no offset.

Follow the instructions to enter the customer access code on page 11. When the control displays

 Thermostat Set High, press the down arrow key  until the control display reads   
Room Temperature Offset. Press the set button . Use the arrow keys   to adjust the  
offset to your desired setting. When the display shows the offset you want press the set button .  
The display will then read  Thermostat Set Point High. You can use the up or down arrow  
keys   to scroll to the next parameter or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. q - SETTING THE AUDIBLE ALARM STYLE:

This parameter will allow the customer to turn on/off the audible alarm feature on the INTELA-TRAUL® control. The audible alarm is preset from the factory to OFF. The customer can choose between an audible alarm that sounds for 3 seconds then automatically turns off, or a continuous audible alarm that must be manually acknowledged. Regardless of this feature's setting, visual alarm text will display when conditions warrant.

To adjust this setting, follow the instructions to enter the customer access code on page 11. When the control displays  Thermostat Set Point High, press the up arrow key  until the display reads  Audible Alarm Style. Press the set button . The display will read  OFF. Use the arrow keys   to scroll between  for the 3-Second Audible Alarm Burst or  for Continuous Audible Alarm. When the display shows your choice of style, press the set button . The display will then read  thermostat Set Point High. Use the arrow keys   to scroll to the next parameter or press the Alarm Cancel Button  to exit.

### VII. r - VIEWING SENSOR TEMPERATURES:

These parameters allow a service technician or customer to view the temperature of all sensors within the unit. The temperatures cannot be adjusted.

Follow the instructions to enter the customer access code on page 11. When the control displays Thermostat Set Point High , press the DOWN arrow key  until the display reads  Cabinet Air Sensor, Evaporator Coil Sensor,  and Discharge Line Sensor  or press the SET button . The display will read Thermostat Set Point High .

Press the UP or DOWN arrow keys   to scroll through the parameters or press the ALARM CANCEL button  to exit.

### VII. s - DOOR OPEN ICON:

The door open icon is located on the control face, directly below the Alarm Cancel button (On/Off button for heated cabinet models). This feature illuminates on all solid and hinged glass door models<sup>1</sup> whenever one or more of the doors is opened, and stops illuminating upon all doors being closed. There are no operator adjustable parameters for this feature.

<sup>1</sup>= This feature is not included on either fire-rated or sliding glass door models.

## VII. INTELA-TRAUL® (continued)

### VII. t - HOT FOOD UNITS, ADJUSTING THE THERMOSTAT & TURNING THE UNIT OFF/ON:

This parameter sets the desired cabinet temperature. Please note that hot food units are delivered from the factory set to the OFF position.

Follow the instructions to enter the customer access code on page 11. When the control reads

**SPH**

Thermostat Set Point High, press the set button **SET**.

Use the arrow keys   to adjust the temperature to your desired setting. When the display shows the temperature you want press the set button **SET**. The display will then read

**SPH**

Thermostat Set Point High. You can use the up or down   arrow keys to scroll to the next parameter or press the alarm cancel button  to exit.

### VII. u - HOT FOOD UNITS, TURNING THE UNIT OFF/ON:

After the temperature has been set, the customer can continuously turn the unit OFF and then back ON to the same temperature. To turn the unit ON /OFF press the alarm cancel button , (please note that this feature is not available on versions of the control manufactured prior to September 2000), or if an alarm warning condition is present, use the alternative ON/OFF activation method.

To turn the unit ON/OFF using the alternative method, press both arrows   at the same time, the set temperature will remain in memory.

### VII. v - HOT FOOD UNITS, TEMPERATURE ADJUSTMENT:

Press the **SET** button **SET** and the **UP ARROW** button  at the same time. The display will flash the current temperature setting or **OFF** (if the unit is turned off). Use the **UP**  or **DOWN ARROW**  buttons to adjust your desired temperature setting (temperature range is 140° thru 180° F, and OFF) then press the **SET** button **SET**. The display will go back to reading cabinet temperature. If **OFF** is selected, the display will then read **OFF**. **NOTE:** If you wish to change the set temperature at anytime follow this procedure.

These models also include a “One-Time Temperature Setting Adjustment” feature. Upon start-up, the unit will warm-up to the last temperature you had set for it, unless changed.

## VIII. TROUBLE SHOOTING GUIDE

FIND YOUR PROBLEM HERE	REMEDY
1. Condensing unit fails to start.	<ul style="list-style-type: none"> <li>a. Check if cord &amp; plug has been disconnected.</li> <li>b. Check INTELA-TRAUL® temperature setting.</li> </ul>
2. Condensing unit operates for prolonged periods or continuously.	<ul style="list-style-type: none"> <li>a. Are doors closing properly?</li> <li>b. Dirty condenser or filter. Clean properly.</li> <li>c. Evaporator coil iced. Needs to defrost. See instructions for setting a manual defrost cycle on page 16.</li> <li>d. Shortage of refrigerant, call service.</li> </ul>
3. Food compartment is too warm.	<ul style="list-style-type: none"> <li>a. Check door(s) and gasket(s) for proper seal</li> <li>b. Perhaps a large quantity of warm food has recently been added or the door was kept open for a long period of time, in both cases, allow adequate time for the cabinet to recover its normal operating temperature.</li> <li>c. INTELA-TRAUL® setting too high, readjust per instructions on page 12.</li> </ul>
4. Food compartment is too cold.	<ul style="list-style-type: none"> <li>a. Perhaps a large quantity of very cold or frozen food has recently been added. Allow adequate time for the cabinet to recover its normal operating temperature.</li> <li>b. Adjust the INTELA-TRAUL® to a warmer setting, see page 13.</li> </ul>
5. Condensation on the exterior surface.	<ul style="list-style-type: none"> <li>a. Check door alignment and gaskets for proper seal.</li> <li>b. Condensation on the exterior surface of the unit is perfectly normal during periods of high humidity. However, to alleviate the condition, adjust the INTELA-TRAUL® “Dewpoint Compensation Factor,” see page 18.</li> </ul>
6. Compressor hums but does not start.	<ul style="list-style-type: none"> <li>a. Call for service.</li> </ul>
7. Door open icon continually illuminated.	<ul style="list-style-type: none"> <li>a. Door open, close door.</li> <li>b. Faulty door switch, replace door switch.</li> </ul>
8. Door open icon does not illuminate.	<ul style="list-style-type: none"> <li>a. Faulty door switch, replace door switch.</li> </ul>
9. Evaporator fans not operating.	<ul style="list-style-type: none"> <li>a. Defrost cycle in progress (freezers only).</li> <li>b. Other, contact service.</li> </ul>

## XI. SPARE PARTS LIST

PART	PART #	DESCRIPTION
Bulb, Fluorescent	337-27690-00	Replacement bulb for fluorescent light models
Bulb, Incandescent	378-29776-00	Replacement bulb for incandescent light models
Bulb Cover	337-30858-00	Replacement bulb cover for incandescent light models
Caster, 6" High	344-13140-01	Optional caster for all reach-in models
Caster, 4" High W/O Brake	SMO-28627-00	Optional lower height caster
Caster, 4" High W/Brake	SMO-28628-00	Optional lower height caster
Caster Bolt (4 req'd per caster)	351-25542-00	Bolt for above
Door Handle, Stainless Steel	344-37690-00	Replacement handle for solid door units
Door Lock, Sliding Glass	346-60005-00	Jewelers type door lock for sliding glass door model
Hinge Cam	344-28488-00	Replacement hinge cam
Hinge Cover	344-28486-00	Replacement hinge cover
Hinge, Spring Assist	SER-29021-03	Alternative hinge, spring assist
Hinge Assembly W/Stop Feature	SER-40677-02	Alternative hinge, stop feature
Hinge Assembly	SER-28583-00	Replacement hinge assembly
Key, Master	346-29467-00	Replacement key for solid door units
Leg, 4" High Adjustable	344-29558-00	Replacement or optional leg
Leg, 6" High Adjustable	344-13168-01	Replacement leg
Shelf Pin	344-24759-02	Replacement shelf pin
Shelf Clip	344-08982-00	Replacement shelf clip for pilasters
Tray Slide, #4 Chrome Rod Type	340-04842-00	Tray slide for rim support of 18" x 26" pan
Tray Slide, Universal	719-07805-00	Tray slide for 18" x 26", 14" x 18" or 12" x 20" pan
Tray Slide, #1	719-20236-00	Tray slide for 18" x 26" or 14" x 18" pan
Coil Sensor	337-60071-02	Coil Sensor For Microprocessor Control
Discharge Sensor	337-60072-02	Discharge Line Sensor For Microprocessor Control
Cabinet Sensor	337-60069-02	Cabinet Sensor For Microprocessor Control
Horn	337-60070-00	Horn For Audible Control Alarms

## XII. STAINLESS STEEL OVERVIEW

### XII. a - INTRODUCTION:

All Traulsen R & A Series Refrigerator, Freezer, Dual-Temp and Heated Cabinet models are constructed with a high quality 430 series, 20 gauge stainless steel exterior finish (front, sides and doors). The interior finish on these same R-Series models are constructed using 300 series stainless steel (anodized aluminum is used for A-Series).

The stainless steel finish on Traulsen R & A Series should retain its appearance throughout the products usable lifetime. However, some care is required to maintain this appearance. The following paragraphs will provide a guideline on proper care of the exterior/interior finish, as well as some suggestions on how to repair a finish which has been marred due to adverse environmental conditions or improper jobsite care.

### XII. b - STAINLESS STEEL, HOW IT WORKS:

The process by which stainless steel retains its appearance is a result of its type of metal alloy. Steel is a composite of metals combined in a specific industrial process. Stainless steel contains a high percentage of chromium, the addition of which provides both its appearance, and a microscopic surface layer protecting the steel underneath from corrosion. This external layer acts as a barrier, preventing typical oxidation of the steel. Remove this barrier, and the environment will eventually corrode the metal, marring its appearance.

### XII. c - UNDERSTANDING THE CAUSES OF CORROSION:

Corrosion to stainless steel can only be caused in one of four specific ways:

#### 1) **ABRASION**

Abrasion can be caused during routine cleaning of the metal, either by use of an abrasive cleanser, or use of an abrasive device, such as a metal scouring pad. Abrasion can also be caused by contact with other hard surfaces, such as nearby equipment, walls or tools. Special care should be taken to position your unit properly to prevent accidental dents and scratches.

#### 2) **WATER**

Water everywhere contains various deposits, or solids, which as the water dries or evaporates, can leave spots behind. The spots may eventually cause corrosion if not removed.

#### 3) **CHEMICALS OR WATER CONTAINING CHLORIDES**

Chlorides, such as found in water or many cleaning materials are especially corrosive to stainless steel. Daily janitorial duties, such a floor mopping, can splash water containing chlorinated cleansers against the front and sides of a Traulsen refrigeration product, resulting in corrosion. Avoid use of these on or around a Traulsen refrigeration product if at all possible.

#### 4) **PROLONGED CONTACT WITH FOOD PRODUCT**

Many food products, such as milk and carbonated sodas, contain acids which may damage the protective layer of stainless steel. All food and beverage spills

XII. c - UNDERSTANDING THE CAUSES OF CORROSION: should be cleaned up promptly to avoid possible stains and corrosion.

## XIII. CARE OF STAINLESS STEEL

### XIII. a - USING THE PROPER TOOLS:

Use of proper cleaning materials will do much to prolong the appearance of your Traulsen refrigeration product. We particularly encourage the use of either plastic scouring pads or soft cloths for cleaning stainless steel.

Soft nylon scouring pads can also be used, however care has to be used to insure that all scrubbing is done in the direction of the metals "GRAIN." Because metals are crystalline in nature, when they are in a solid state the individual ions line up to form visible grain lines. Use of a soft nylon scouring pad in a direction opposite of the grain will mar its luster. Always do so "PARALLEL" to the grain.

There are several types of tools which should **NEVER BE USED** when cleaning stainless steel, these include:

- WIRE BRUSHES
- METAL SCOURING PADS
- SANDPAPER
- SCRAPERS & PUTTY KNIVES

Use of any of these tools will result in scratches or removal of the stainless steel's protective layer, which will eventually lead to corrosion and rust.

### XIII. b - USING THE RIGHT CLEANSER:

Avoid all cleaning products containing chloride ingredients. Use of a cleanser specifically designed for stainless steel is highly recommended. You may find yourself in a situation where you are uncertain if a particular cleaning product contains any chlorides. If unsure, it's probably best to just assume that it does and avoid its use in cleaning a Traulsen refrigeration product.

Also to be avoided are cleaning products which contain "QUATERNARY SALTS." These salts can literally attack the stainless steel's protective layer, leading to corrosion and pitting of the steel's surface.

After cleaning, it is important to always rinse the cleaned area thoroughly with cool, clean water (do not use hot water) and wipe completely dry using a paper towel or soft absorbent cloth.

Use of cleaning products designed for use on stainless steel, in conjunction with the proper tools, as outlined above will help retain the appearance of your Traulsen refrigeration product for years and years.

## XIII. CARE OF STAINLESS STEEL

(cont'd)

### XIII. c - CLEANING SUMMARY - DO'S & DONT'S:

To summarize the proper cleaning of Traulsen refrigeration products, always follow the below guidelines.

- DO use only cleaning products designed for stainless steel, or cleaning products which do not contain chlorides.
- DO use only non-abrasive cleaning materials, such as soft cloths or plastic scouring pads.
- DO clean-up food and beverage spills ASAP.
- DO scrub only in the direction of the grain when using soft nylon scouring pads.
- DON'T use chlorinated cleansers or cleansers containing quaternary salts.
- DON'T use abrasive cleaning materials or tools which can scratch the stainless steel's surface.

### XIII. d - DEALING WITH ACCIDENTAL CHLORIDE CONTACT:

In the daily routine of a busy foodservice operation, your Traulsen refrigeration product may occasionally come in contact with chlorinated cleaners, such as when being splashed during mopping. Stain and corrosion problems resulting from this can be avoided by prompt action to remove this cleanser. Rinse the affected area(s) thoroughly with cool, clean water (do not use hot water) and wipe completely dry using a paper towel or soft absorbent cloth.

### XIII. e - PROTECTING THE STAINLESS STEEL SURFACE:

Occasional use of a commercial stainless steel polish, such as "Sheila Shine," will help protect the surface of stainless steel. Follow the directions on the spray can for proper use.

## XIV. CORROSION REMEDIES

### XIV. a - DEALING WITH RUST AFTER THE FACT:

Although Traulsen strongly recommends proper care and cleaning of stainless steel finishes in order to avoid rust and corrosion before it occurs, we recognize that it may occur occasionally as a result of the causes described in section one of this booklet.

To remove small quantities of rust from the surface of stainless steel, it is far preferable to deal with this when it first becomes visible. When rust occurs, do not allow it to remain for any period of time, and remove it using the following method:

**STEP ONE** - Use a lightly abrasive compound (free of harmful chlorides), such as "Bon Ami," on a soft cloth, to remove the rust. Care must be taken to rub this on the area of rust only in the direction of the stainless steel's grain.

**STEP TWO** - Once the rust is removed, clean the affected area thoroughly with a stainless steel cleaner (see sections II. a & b).

## XIV. CORROSION REMEDIES

### XIV. a - DEALING WITH RUST AFTER THE FACT (cont'd):

**STEP THREE** - Apply a preservative polish, such as "Sheila Shine," to the affected area (see section II. e).

### XIV. b - DEALING WITH EXTREME RUST SITUATIONS:

In the event that rust and corrosion were not dealt with promptly, more acute situations can be remedied as follows:

**NOTE: PROCEDURE REQUIRES USE OF AN ACID BASED SOLUTION - USE OF PROTECTIVE GLOVES AND EYEWEAR ARE REQUIRED BEFORE PROCEEDING**

**STEP ONE** - In a clean spray bottle combine water with "Zep FS Lime Remover" to make a 5 parts to 1 solution.

**STEP TWO** - Apply this solution to the affected area with either a clean cloth or sponge.

**STEP THREE** - After application, wipe the same area thoroughly clean with water only to remove any residue.

**STEP FOUR** - Once cleaned, apply a light coat of "Zep Restore" to the surface area. This will serve to preserve the metal and help prevent future rust from occurring.

**STEP FIVE** - Restore the remaining stainless steel surfaces to their original shine using "Zep Stainless Steel Polish."

Repeat steps one thru five if necessary for stubborn rust and corrosion areas.

### XIV. c - RESTORING THE PROTECTIVE LAYER:

There are several products available on the market today which can actually help restore the "PASSIVATION" of stainless steel. "PASSIVATION" refers to the protective qualities of the non-reactive surface layer of stainless steel which prevents oxidation. Contact your cleaning supplier for product recommendations and more information.

## XV. WARRANTY INFORMATION

### STANDARD DOMESTIC WARRANTY

TRAUALSEN warrants new equipment to the original purchaser, when installed within the United States against defective material and workmanship for one (1) year from the date of original installation. Under this warranty, TRAUALSEN will repair or replace, at its option, including service and labor, all parts found to be defective and subject to this warranty. The compressor part is warranted for an additional four (4) years. During this period TRAUALSEN will supply replacement compressor(s) if deemed defective, however all installation, recharging and repair costs will remain the responsibility of the owner.

This warranty does not apply to damage resulting from fire, water, burglary, accident, abuse, misuse, transit, acts of God, terrorism, attempted repairs, improper installation by unauthorized persons, and does not apply to food loss.

For Traulsen units purchased with a remote feature, standard warranty will apply only to those components contained within the unit to the point of connection of the refrigeration lines leading to the remote condenser.

THERE ARE NO ORAL, STATUTORY OR IMPLIED WARRANTIES APPLICABLE TO TRAUALSEN, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. TRAUALSEN SHALL HAVE NO OBLIGATION OR LIABILITY FOR CONSEQUENTIAL OR SPECIAL DAMAGES, GROWING OUT OF OR WITH RESPECT TO THE EQUIPMENT OR ITS SALE, OPERATION OR USE, AND TRAUALSEN NEITHER ASSUMES NOR AUTHORIZES ANYONE ELSE TO ASSUME FOR IT ANY OBLIGATION OR LIABILITY IN CONNECTION WITH THE EQUIPMENT OR ITS SALE, OPERATION OR USE OTHER THAN AS STATED HEREIN.

### INTELA-TRAUL® CONTROL WARRANTY

TRAUALSEN warrants to the original purchaser of the INTELA-TRAUL® control when installed as part of the Refrigeration/Hot Food Equipment manufactured and sold by TRAUALSEN, to be free of defects in material and workmanship under normal service and use for a period of two (2) years from the date of installation. Under this warranty statement, TRAUALSEN will repair or exchange at TRAUALSEN'S discretion, F.O.B. factory, any part of said control, which proves to be defective. Inspection by the TRAUALSEN Service Department of parts claimed defective shall be final in determining warranty status. The warranty is to include repair or exchange of any defective In-Warranty control or part(s) of said control for:

**Part(s) – Any TRAUALSEN INTELA-TRAUL® supplied part(s) found to be defective.**

**Labor – The labor charges from a TRAUALSEN certified service agent to effect the repair or exchange of the defective part(s).**

“Defective Part Return” – All claimed defective part(s) must be returned to TRAUALSEN for defect validation within 30 days from the date of the repair. Failure to return all claimed defective part(s) to TRAUALSEN will invalidate the warranty claim, this warranty statement, and forfeit payment for those repairs effected.

This warranty does not apply to damage resulting from fire, water, burglary, accident, abuse, misuse, transit, acts of God, terrorism, attempted repairs, improper installation by unauthorized persons, and does not apply to food loss, and will not apply if said equipment is located outside The United States.

### INTERNATIONAL COMMERCIAL WARRANTY

TRAUALSEN warrants to the original purchaser the Refrigeration Equipment manufactured and sold by it to be free from defects in material and workmanship under normal use and service for a period of one (1) year from date of shipment. Under this warranty, TRAUALSEN will reimburse the purchaser for the replacement of any part of said equipment (excluding dryers & refrigerant gas) which then proves to be defective. This warranty does not apply to damage resulting from fire, water, burglary, accident, abuse, misuse, transit, acts of God, terrorism, attempted repairs, improper installation by unauthorized persons, and will not apply to food loss.

TRAUALSEN'S standard warranty does not apply to Export Sales. Rather, for a period of one (1) year from date of original installation not to exceed Fifteen (15) months from date of shipment from factory, TRAUALSEN:

**will replace, F.O.B. factory, any defective parts normally subject to warranty.**

**will not cover the cost of packing, freight or labor such costs being the sole responsibility of the dealer.**

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED AND CONSTITUTES TRAUALSEN'S FULL OBLIGATION AND LIABILITY. WARRANTIES NOT AVAILABLE ON REMOTE MODELS.**

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**HOURS OF OPERATION:**

Monday thru Friday 7:30 am - 4:30 pm CST



Quality Refrigeration

**Traulsen**

4401 Blue Mound Road Fort Worth, TX 76106

Phone: (800) 825-8220 Fax-Svce: (817) 740-6757

Website: [www.traulsen.com](http://www.traulsen.com)



**Quality Refrigeration**

# OWNER'S MANUAL

**Instructions for the installation, operation**

**and maintenance of all Traulsen:**

**R & A Series Reach-In & Roll-In Refrigerators\***

**R & A Series Pass-Thru & Roll-Thru Refrigerators\***

**R & A Series Reach-In & Roll-In Freezers\***

**R & A Series Reach-In Refrigerator/Freezers\***

**R & A Series Reach-In & Roll-In Hot Food Cabinets\***

**R & A Series Pass-Thru & Roll-Thru Hot Food Cabinets\***

\* **Please Note:** This manual is intended for use with the above referenced equipment manufactured after January 01, 2013. To obtain a copy of the correct Owner's Manual to support the same products manufactured prior to this date, please contact Traulsen Service at (800) 825-8220.

This Traulsen unit is built to our highest quality standards. We build our refrigerators, freezers and heated cabinets this way as a matter of pride. This philosophy has made Traulsen the leader in commercial refrigeration since 1938. We thank you for your choice and confidence in Traulsen equipment and we know you will receive many years of utility from this equipment.

All Traulsen units are placed on a permanent record file with the service department. In the event of any future questions you may have, please refer to the model and serial number found on the name tag affixed to the unit. Should you need service, however, call us on our toll free number, 800-825-8220 between 7:30 am and 4:30 pm CST, Monday-Friday. It is our pleasure to help and assist you in every possible way.

## INSTALLER

**COMPLETE THE FOLLOWING INFORMATION PRIOR TO UNIT INSTALLATION**

INITIAL START DATE: \_\_\_\_\_ SERIAL NO. \_\_\_\_\_

MODEL TYPE: \_\_\_\_\_

COMPANY/INDIVIDUAL NAME: \_\_\_\_\_

INSTALLER: \_\_\_\_\_

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## I. THE SERIAL TAG

The serial tag is a permanently affixed sticker on which is recorded vital electrical and refrigeration data about your Traulsen product, as well as the model and serial number. This tag is located in the upper right interior compartment on all reach-in/pass-thru and roll-in/roll-thru refrigerator, freezer and dual-temp models. For hot food models, this tag is located on the top of the unit behind the louvers to protect it from the heat.

		4401 Blue Mound Rd. Ft. Worth, TX 76106 800-825-8220									
<table border="1"> <tr> <td>MODEL:</td> <td></td> </tr> <tr> <td>MODELO:</td> <td></td> </tr> <tr> <td>MOOEE:</td> <td></td> </tr> <tr> <td>S/N:</td> <td></td> </tr> </table>		MODEL:		MODELO:		MOOEE:		S/N:		 <small>SCAN FOR SERVICE INFO</small>	
MODEL:											
MODELO:											
MOOEE:											
S/N:											
<b>REFRIGERANT / REFRIGERANTE / RÉFRIGÉRANT</b>											
SYS1 (REFM):											
Hi Press. (PRESH):											
Lo Press. (PRESL):											
SYS2 (REFA):											
Hi Press. (PRESH):											
Lo Press. (PRESL):											
<b>Input Power (ELIN) - FOR INDOOR USE ONLY</b>											
(Symbol 1) <small>(Primary Salt)</small>	(Symbol 2) <small>(Primary Sanitation)</small>	(Symbol 3) <small>(Primary Energy)</small>	(Symbol 4) <small>(NTEE)</small>								
(Symbol 5) <small>(Alt Safety / Other)</small>	(Symbol 6) <small>(Alt Sanitation / Other)</small>	(Symbol 7) <small>(Alt Energy / Other)</small>	(Symbol 8) <small>(Cust QR Code / Other)</small>								
Device/Part Number: Part.PartNum		Device/Part Notes: Part.Character04									
<b>COMPONENTS / COMPOSANTS / COMPONENTES</b>											
COMP AMPS:		LIGHT WAITS:									
COND FAN AMPS:		CTRL AMPS:									
SYS/DEF HTR AMPS:		I/TMCE HTR AMPS:									
DOOR HTR AMPS:		MIN CIRCUIT IN AMPS:									
SYS/EVAP FAN AMPS:		MAX OVR CURRENT PROTECTION AMPS:									
<small>370-60297-00 REV. B 11/21/14</small>											

## II. RECEIPT INSPECTION

All Traulsen products are factory tested for performance and are free from defects when shipped. The utmost care has been taken in crating this product to protect against damage in transit. All interior fittings have been carefully secured and the legs or casters are boxed and strapped inside to prevent damage. Door keys will be attached to the handle with a nylon strip. The handle is protected by an easily removable nylon netting.

You should carefully inspect your Traulsen unit for damage during delivery. If damage is detected, you should save all the crating materials and make note on the carrier's Bill Of Lading describing this. A freight claim should be filed immediately. If damage is subsequently noted during or immediately after installation, contact the respective carrier and file a freight claim within 10 days. Under no condition may a damaged unit be returned to Traulsen. without first obtaining written permission (return authorization).

## III. INSTALLATION

### III. a - LOCATION:

Select a proper location for your Traulsen unit, away from extreme heat or cold. Allow enough clearance between the unit and the side wall in order to make use of the door stay open feature at 120° (self-closing feature operates up to 90°). The door(s) must be able to open a minimum of 90° in order to make use of the maximum clear door width available.

### III. b - PACKAGING:

All Traulsen units are shipped from the factory bolted to a sturdy wooden pallet and packaged in a durable cardboard container. The carton is attached to the wooden skid with the use of large staples. These should first be removed to avoid scratching the unit when lifting off the crate.

Most exterior stainless steel surfaces have a protective vinyl covering to prevent scratching during manufacturing, shipping and installation. After the unit is installed in place of service, remove and discard the covering from all surfaces.

To remove the wooden pallet, first if at all possible, we suggest that the cabinet remain bolted to the pallet during all transportation to the point of final installation. The bolts can then be removed with a 3/4" socket wrench. Avoid laying the unit on its front, side or back for removal of the pallet.

**NOTE: DO NOT LAY THE UNIT ON ITS SIDE DURING TRANSPORTATION OR INSTALLATION.**

Roll-Thru models also include special interior wood bracing, intended to protect the cabinet during shipment. This bracing should under no circumstances be removed prior to the unit being installed in its final location

**WARNING:** Read and review these instructions, in their entirety, BEFORE attempting to disassemble and remove the interior bracing.

## III. INSTALLATION (continued)

### III. b - PACKAGING (cont'd):

If either of the diagonal or upper ceiling braces are dropped, they could cause personal injury or damage to the equipment.

To disassemble the bracing, first open the doors and carefully remove the banding that holds the two diagonal braces together.

**WARNING:** The diagonal braces will now be loose and can fall out of position and possibly permit the ceiling corner brace to fall.

Carefully remove one diagonal brace while supporting the ceiling corner brace, so that it does not fall (see figure 1). Next, remove the ceiling brace, the remaining diagonal brace, and lastly the floor brace - then discard. Repeat as necessary for each section of the unit.

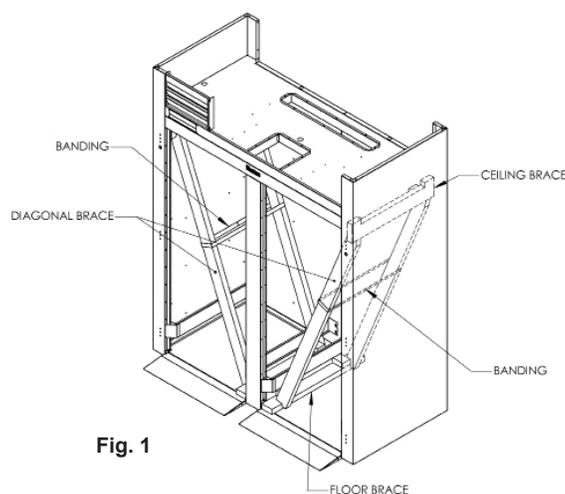


Fig. 1

### III. c - INSTALLING LEGS OR CASTERS:

6" high stainless steel legs are supplied standard for all Traulsen reach-in and pass-thru units. Casters in lieu of legs are available as an optional accessory for the same models. These are shipped from the factory packed inside a cardboard box which is strapped to one of the shelves. Remove the nylon strap and open the box, it should contain either four (4) legs or four (4) casters and sixteen (16) bolts.

**WARNING: THE CABINET MUST BE BLOCKED AND STABLE BEFORE INSTALLING LEGS OR CASTERS.**

To install the legs or casters, first raise and block the reach-in a minimum of 7" from the floor. For installing legs, thread the legs into the threaded holes on the bottom of the cabinet (see figure 2). Be certain that all legs are tightly secured (legs and casters should be tightened to 300 inch/pounds, max). When the unit is set in its final position, it is important for proper operation that the unit be level. The legs are adjustable for this purpose, turn the bottom of the leg counter-clockwise to raise it, clockwise to lower it. Level the unit from front to back as well as side to side in this manner, using a level placed in the bottom of the cabinet.

### III. INSTALLATION (continued)

#### III. c - INSTALLING LEGS OR CASTERS (cont'd):

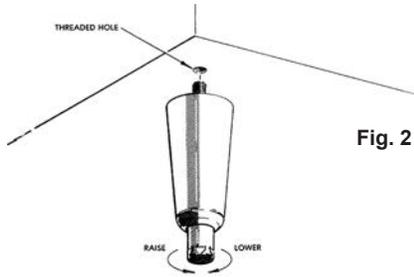


Fig. 2

Please note that Traulsen units are not designed to be moved while on legs. If the unit requires moving, a pallet jack or forklift should be used to prevent damage. For installing casters, the casters are "plate" type, and require the use of four (4) bolts each to secure them firmly to the cabinet bottom at each corner (see figure 3). The caster bolts are tightened using a 1/2" socket wrench.

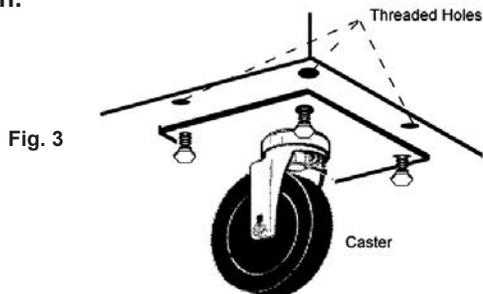


Fig. 3

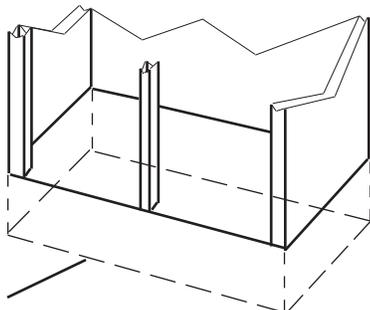
#### III. d - SHELF PINS:

The unit is supplied with shelves and shelf pins installed. Check all shelf pins to assure they are tightened down as they may have come loose during shipping. Rotate the pins clockwise until they are secured against the side of the cabinet.

#### III. e - ROLL-IN MODEL INSTALLATION:

Roll-In cabinets set on the floor require the floor area to be flat and level. In addition, after the cabinet is set in place, sealant should be used around the perimeter of the base to comply with National Sanitation Foundation requirements (see figure 4). After sealing the unit, the enclosed ramp should then be installed.

##### SEALING BASE OF ROLL-IN MODELS



A SEALANT MUST BE USED AROUND THE PERIMETER OF THE BASE OF CABINET AS SHOWN TO FULLY COMPLY WITH SANITARY REQUIREMENTS.

A RECOMMENDED SEALANT IS DOW CORNING SILASTIC RTV

Fig. 4

#### III. e - ROLL-IN MODEL INSTALLATION (cont'd):

A stainless steel threshold ramp(s) is included to facilitate roll in racks. It is shipped wrapped in brown paper and secured to the rack guides inside the cabinet. To secure it in place, remove the two thumb screws in the breaker strip near the bottom door opening. Next, loosen the thumb screws located along the floor at the threshold. Place the ramp(s) on top of the loosened thumb screws and secure tabs on each end to breaker strips with thumb screws previously removed. After installing the ramp(s), it too should be sealed to the floor .

Bumper strips are secured to the back of Roll-In models with thumb screws. Loosen these and make them finger tight to conform with the requirements of the National Sanitation Foundation (NSF).

#### III. f - ATTACHING DOUBLE DEPTH UNITS TOGETHER:

Double depth roll-in/roll-thru units are shipped as two separate components which must be attached together at the jobsite. To accomplish this, first, place the front and rear cabinets in close proximity to each other being careful to align the drain from the front of the rear unit to the drain of the front unit. It will be necessary to level both units together at this time.

Next, using two pipe clamps, pull the units together (see figure 5). Install the covers over the gap formed between the units. From inside the cabinets, using the screws provided, install the breaker strips using the strip as a template.

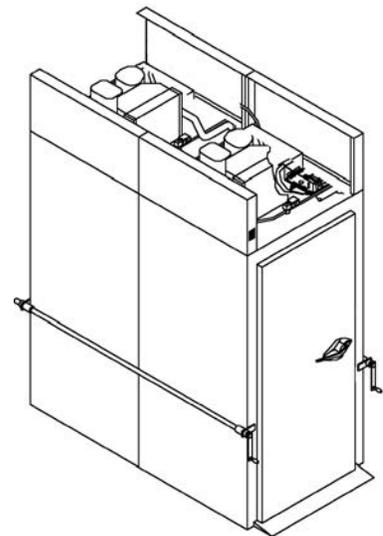


Fig. 5 - Using two pipe clamps, pull the two units together and using the screws provided. Align the breaker strips as a template for the screw pattern inside and outside the cabinet.

#### III. g - INSTALLING THE CONDENSATE EVAPORATOR:

A condensate evaporator is normally supplied on all self-contained models (remote models require provision of either a floor drain or an optional condensate evaporator). On those models supplied with a top-mounted evaporator coil compartment, the condensate evaporator is also secured to the top of the cabinet. Check that the condensate pan is properly located underneath the drain tube.

### III. INSTALLATION (continued)

#### III. g - INSTALLING THE CONDENSATE EVAP (cont'd):

**NOTE:** Some models, such as single section dual-temperature refrigerator/freezers, are supplied with a bottom-mounted condensate evaporator. This is shipped in a cardboard carton secured to the cabinet interior, and must be **PROPERLY** installed prior to use (see instructions supplied with the condensate evaporator).

1) After the cabinet has been uncrated and the legs/casters attached, you must install the bottom-mounted condensate evaporator. 2) Locate the four (4) holes on the exterior bottom towards the rear of the cabinet. 3) Using the provided 10-32 screws, attach the mounting rails to the bottom, (the folded flange is to be turned up and be towards the drain line. 4) Slide condensate pan into the mounting rails. 5) Screw the "U-Trap" on to the drain line located on the rear of the cabinet. 6) Screw the drain extension into the "U-Trap."

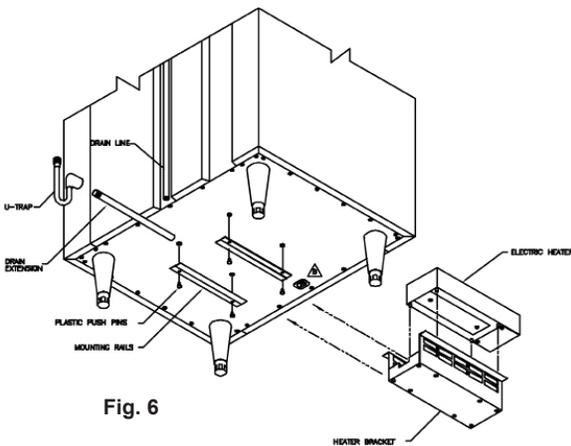


Fig. 6

**NOTE:** The use of the "U-TRAP" supplied is required. Failure to use this component may allow cold air to migrate down the drain line, resulting in condensation on the rear of the cabinet.

A remote model is normally supplied configured for condensate to be run to a floor drain unless purchased with a condensate evaporator. The installer is responsible for making the required extension to the floor drain in accordance with good practice and local regulations.

#### III. h - REMOTE INSTALLATION:

Remote models are supplied without compressors, solenoid valves, etc. The correct voltage, amp listing and refrigerant are listed on the units serial tag. It is the responsibility of the installer to specify and supply the correct size compressor(s) based upon this information and on-site requirements.

#### III. h - REMOTE INSTALLATION (cont'd):

Refrigerant line installation must be done in accordance with good practice and local regulations. See section "III. g" for information concerning condensate removal for remote models.

#### III. i - CORD & PLUG:

Most self-contained models are supplied with a cord & plug attached. It is shipped coiled at the top of the cabinet, secured by a nylon strip. For your safety and protection, all units supplied with a cord and plug include a special three-prong grounding plug on the service cord. Select only a dedicated electrical outlet with grounding plug for power source. **NOTE:** Do not under any circumstances, cut or remove the round grounding prong from the plug, or use an extension cord.

#### III. j - POWER SUPPLY:

The supply voltage should be checked prior to connection to be certain that proper voltage for the cabinet wiring is available (refer to the serial tag to determine correct unit voltage). Make connections in accordance with local electrical codes. Use qualified electricians.

Use of a separate, dedicated circuit is required. Size wiring to handle indicated load and provide necessary overcurrent protector in circuit (see amperage requirements on the unit's serial tag).

#### III. k - WIRING DIAGRAM:

Refer to the wiring diagram for any service work performed on the unit. Should you require one, please contact Traulsen Service at (800) 825-8220, and provide the model and serial number of the unit involved.

#### III. l - CLEARANCE:

In order to assure optimum performance, the condensing unit of your Traulsen unit **MUST** have an adequate supply of air for cooling purposes. Therefore, the operating location must either have a minimum of 12" clearance overhead of the condensing unit or allow for unrestricted air flow at the back of the unit. Clearance of at least 12" above is required in order to perform certain maintenance tasks.

## IV. OPERATION

### IV. a - REFRIGERATORS:

Both refrigerators and freezers do not require manual defrosting. During normal operation, a refrigerator continuously circulates above freezing cabinet air through the coil. A compressor "OFF" cycle occurs every hour to melt any frost which may accumulate on the coil during the compressor "ON" cycle. The control will read "dEF" when this occurs and the evaporator fans will continue to operate. With standard holding refrigerators, high relative humidity is also maintained to prevent dehydration of stored product.

### IV. b - FREEZERS:

During normal operation, a freezer continuously circulates below freezing cabinet air through the coil. The coil requires a periodic defrosting for proper operation. This is accomplished by an automatic, time activated, temperature/time terminated, defrost program. The controller is preset at the factory for six equally spaced defrost cycles within each 24-hour period.

At the start of a freezer defrost cycle, both the compressor and evaporator fans are OFF. The INTELA-TRAUL® control will read "dEF" (see figure 7). The electric heater (attached to the coil) is energized. When a temperature device affixed to the coil senses 70°F (models with electric defrost), the coil is fully defrosted and the compressor operation is resumed, defrost heaters are automatically turned off. The coil fans are delayed from starting at the termination of a defrost cycle. Fan operation is automatically resumed, or they can also be started by a time or temp delay (whichever comes first). In case of temp delay, it uses the same coil sensor and starts at 32°F. The total refrigeration system operation is then resumed.

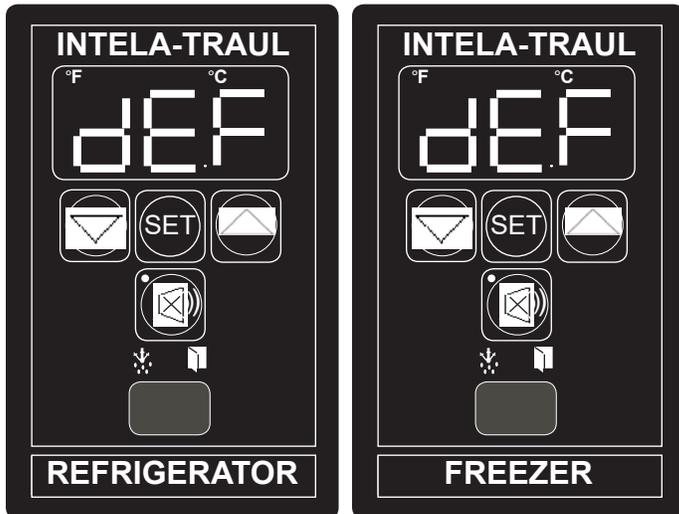


Fig. 7

During freezer defrost operation, heat is confined to the coil enclosure to prevent any significant rise in temperature within the food zone. The fan delay controls function upon termination of a defrost cycle is two-fold. First, to prevent blowing warm air into the food storage area. Second, to prevent any condensation on the defrost coil from being blown into the food storage area.

The INTELA-TRAUL® control is set from the factory to terminate defrost at 20 minutes in the event of a sensor failure. This setting should never be tampered with, without first consulting the factor .

### IV. c- HOT FOOD CABINETS:

Hot food cabinet operation is governed by the INTELA-TRAUL control, which controls the ON/OFF operation of the strip heaters. The control can be set to maintain any operational temperature between 140 - 180° F (in 5°F increments).

Hot food cabinets are delivered from the factory with the control set to the "OFF" position. Follow the instructions in section "VII. t" to get started.

**NOTE:** A vent is included at the top of all hot food cabinets. The vent opening is factory set and secured for best position. Be certain to make sure this vent is kept free of any obstruction.

## V. CARE & MAINTENANCE

### WARNING

**DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING ANY PARTS OF THE UNIT**

### V. a - CLEANING THE CONDENSER:

The most important thing you can do to insure a long, reliable service life for your Traulsen is to regularly clean the condenser coil.

The condensing unit requires regularly scheduled cleaning to keep the finned condenser clean of lint and dust accumulation. The INTELA-TRAUL control will notify you through a "CLN-FIL" message when cleaning is necessary (see page 8). Keeping the condenser clean allows the cabinet to operate more efficiently and use less energy .

To clean the condenser, first disconnect electrical power to the cabinet and lift up the front louver assembly. To lift this, remove the two screws located on both sides at the bottom of the louver assembly (see figure 8).

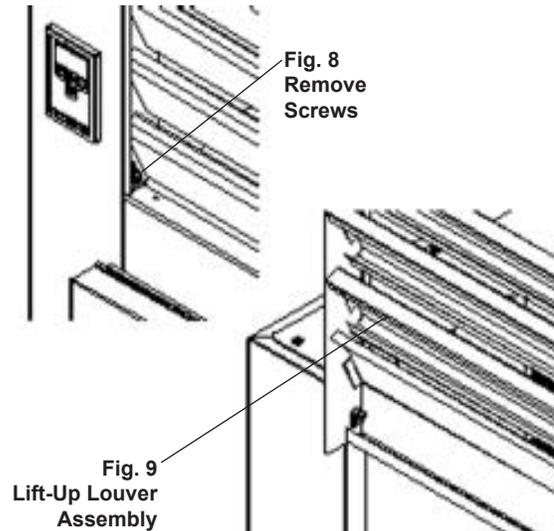


Fig. 9  
Lift-Up Louver  
Assembly

## V. CARE & MAINTENANCE (cont'd)

### V. a - CLEANING THE CONDENSER:

Once the screws are removed, the panel can be pivoted upwards allowing full access to the front facing condenser (see figure 9).

Vacuum or brush any dirt, lint or dust from the finned condenser coil, the compressor and other cooling system parts (see figure 10). If significant dirt is clogging the condenser fins, use compressed air to blow this clear.

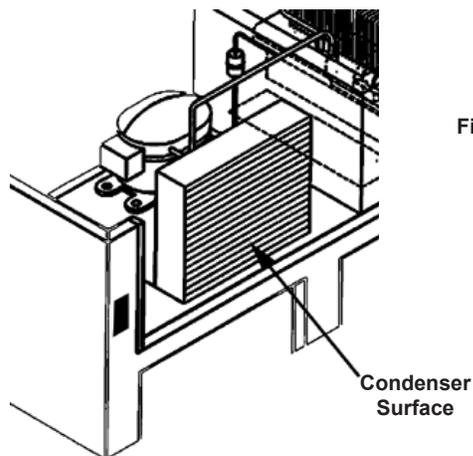


Fig. 10

Lower louver assembly and replace the screws to hold it in place.

### V. b - HINGE REPLACEMENT:

Both the door and hinge can be easily removed from the cabinet. To remove the door, remove the plug at the bottom of the top hinge. Inside the hinge there is a small screw which secures the door in place. Remove this with a flat head screwdriver and the door can then be lifted off the hinge. To remove the door portion of the hinge from the door, lift off the hinge cover and then remove the three Phillips head screws which secure the hinge in place on the door. To remove the cabinet portion of the hinge, remove the three Phillips head screws which hold it in place. On solid door units, the top hinge(s) contains a microswitch for controlling the interior lighting.

To reassemble the hinge reverse the previous procedure.

### V. c - REPLACING THE GASKETS:

To remove the gasket to be replaced, grasp it firmly by one corner and pull it out. Before attempting to install a new gasket, both the unit and the gasket itself must be at room temperature. Insert the four corners first by using a rubber mallet (or hammer with a block of wood).

### V. c - REPLACING THE GASKETS:

After the corners are properly inserted, work your way towards the center from both ends by gently hitting with a mallet until the gasket is completely seated in place (see figure 11 for proper gasket placement).

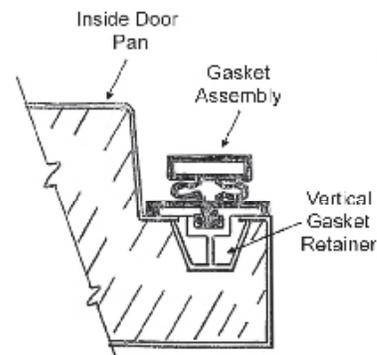


Fig. 11

**NOTE:** The gasket may appear too large, but if it is installed as indicated above it will slip into place.

### V. d - CLEANING THE EXTERIOR:

Exterior stainless steel should be cleaned with warm water, mild soap and a soft cloth. Apply with a dampened cloth and wipe in the direction of the metal grain.

Avoid the use of strong detergents and gritty, abrasive cleaners as they may tend to mar and scratch the surface. Do NOT use cleansers containing chlorine, this may promote corrosion of the stainless steel.

Care should also be taken to avoid splashing the unit with water, containing chlorinated cleansers, when mopping the floor around the unit.

For stubborn odor spills, use baking soda and water (mixed to a 1 TBSP baking soda to 1 pint water ratio).

### V. e - CLEANING THE INTERIOR:

For cleaning both stainless steel and anodized aluminum interiors, the use of baking soda as described in section "V. d" is recommended. Use on breaker strips as well as door gaskets. All interior fittings are removable without tools to facilitate cleaning.

### V. f - ADJUSTING THE SHELVES:

For shelves mounted on pins, first select the desired location and remove the white plastic covers in the interior back and sides by rotating them counter-clockwise. Remove the shelf pins by rotating them counter-clockwise. Install the pins in the desired location by rotating clockwise. Make sure the pin is securely tightened down. Do not over tighten. Slide the shelf into its new position, and replace the white plastic covers into the holes vacated by the shelf pins.

## V. CARE & MAINTENANCE (cont'd)

### V. g - REPLACING THE LIGHT BULB:

All Traulsen R & A Series models are supplied with incandescent lighting unless optional fluorescent lighting was ordered (except for sliding glass door models for which fluorescent lights are supplied standard).

The bulb is a 115 volt/40 watt, T-6 $\frac{1}{2}$  intermediate clear refrigerator lamp. It is mounted at the top front of the cabinet at the center, and is located behind a plastic light cover on refrigerator and freezer model.

Heated units (RHF/AHF/RIH/AIH/RDH/ADH/RIDH/AIDH) are equipped with a similar type bulb, however this is shatterproof because these models do not include a plastic light cover.

To replace the bulb, first remove the light cover (if so equipped). This can be accomplished by squeezing it together on both sides until it comes free. Replace the light bulb, then squeeze both sides of the light cover together and replace in its original position.

## VI. OTHER

### VI. a - SERVICE INFORMATION:

Before calling for service, please check the following:

- Is the electrical cord plugged in?
- Is the fuse OK or circuit breaker on?
- Is the power switch "ON"?

If after checking the above items and the unit is still not operating properly, please contact an authorized Traulsen service agent. A complete list of authorized service agents was provided along with your Traulsen unit. If you cannot locate this, you may also obtain the name of a service agent from the **SERVICE & PARTS** button from our website: [www.traulsen.com](http://www.traulsen.com).

If service is not satisfactory, please contact our in-house service department at:

Traulsen  
4401 Blue Mound Road  
Fort Worth, TX 76106  
(800) 825-8220

Traulsen reserves the right to change specifications or discontinue models without notice.

### VI. b - SPARE PARTS:

Spare or replacement parts may be obtained through a parts supplier or one of our authorized service agents. A complete list of authorized service agents is posted on our company's official website [www.traulsen.com](http://www.traulsen.com), under the **SERVICE & PARTS** button.

### VI. c - WARRANTY REGISTRATION:

For your convenience, the warranties on your new Traulsen unit may be registered with us on-line at [www.traulsen.com](http://www.traulsen.com), under the **SERVICE & PARTS** button.

## VII. The INTELA-TRAUL® Control System

Your new Traulsen Refrigerator, Freezer or Hot Food cabinet is equipped with a state-of-the-art electronic microprocessor INTELA-TRAUL® control, which precisely regulates operation and provides alarms when problems occur. It is supplied from the factory completely ready for use and requires no adjustment (except Hot Food units which are set in the "OFF" position, see page for 19 for more info), but without the audible alarms activated. See pages 9 thru 19 for more information.



### VII. a - INTELA-TRAUL® CONTROL FEATURES:

#### 1- Internal Time Clock

- Defrost cycle can be quickly adjusted to suit individual location and use.
- Must be set at power-up.
- Will automatically update for Daylight Savings Time.

**2- Water Resistant Housing** - The face of the control is water resistant to provide for protection during cleaning.

#### 3- Parameter/Service Levels

- See "**Customer / Service Parameters**" on Page 10.

**4- Defrost Lockouts** - See "**Setting Defrost Lockouts**" on page 16 (refrigerator and freezer models only).

- Customers can set up to 4 different defrost lockout periods. The lockout prevents the unit from going into a defrost cycle during peak kitchen use. **Note: The 24-hour clock must be set for this feature to operate correctly.**

**5- Anti-Condensate Door Perimeter Heater Control** (refrigerator and freezer models only)

"No-Sweat" feature is an energy savings system that allows the customer to set the percent of time for the door heater as needed for the prevailing ambient conditions (from 0 - 100% of the time each day). It is used to prevent condensation from forming around the perimeter of the doors.

#### 6- Alarms (See the following pages for explanations)

- High Cabinet Air Temperature
- Low Cabinet Air Temperature
- Loss Of Power
- Sensor Failure
- Door Open\*
- Clean Condenser (refrigerator and freezer models only)\*
- New Compressor Run Time, Defrost Error

\* Not available on remote models.

\*\* Not available on Fire-Rated or Sliding Door models.

#### 7- Display Features

- Door Open Icon
- 3-Digit LED Display
- Defrost in Progress Icon
- Fahrenheit or Celsius Temperature Scale In Use

## VII. INTELA-TRAUL® (continued)

### VII. a - ALARM EXPLANATIONS:

\***NOTE:** Explanation of alarms assume the audible alarm style is set at a 3-second burst or a continuous audible alarm. References to the audible alarm do not apply if the audible alarm style is set to OFF (Refer to page 18 for setting the audible alarm style).



**High Cabinet Air Temperature:** The audible alarm\* will sound and the display will read **cHI** when the temperature inside the cabinet rises above a pre-programmed limit. The limit is determined by the type of unit being operated (i.e.: refrigerator/freezer). To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will continue to display until the cabinet air temperature falls below the limit. If the temperature does not fall below the limit within 5 minutes, the audible alarm\* will sound again and an additional Call Service message will display.

**POSSIBLE CAUSES (for Refrigerator & Freezer Models):**

- Doors open for extended periods of time.
- Large amounts of hot product placed inside the cabinet.
- Condenser coil dirty.



**Low Cabinet Air Temperature:** The audible alarm\* will sound and the display will read **cLO** when the temperature inside the cabinet falls below a pre-programmed limit. The limit is determined by the type of unit being operated (i.e.: refrigerator/freezer). To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will continue to display until the cabinet air temperature rises above the limit. If the temperature does not rise above the limit within 5 minutes, the audible alarm\* will sound again and an additional Call Service message will display.

**POSSIBLE CAUSES (for Refrigerator & Freezer Models):**

- No product in unit.
- Failed sensors.



**Loss Of Power:** The audible alarm\* will sound and the display will read Electrical Loss, when the unit regains power after an outage. To turn off the audible alarm\* and/or clear the visual text, press the alarm cancel button.



**Door Open:** The display will read Door Open and the audible alarm will sound, after the door or doors have been open for 15 minutes. To turn off the alarm, **close the door** or press the alarm cancel button. If the door remains open for an additional 5 minutes, the audible alarm\* will sound again (n/a on fire-rated and sliding glass door models)



**CONDENSER CLEAN™:** The audible alarm\* will sound and the display will read Clean Filter, when the operating pressures and temperatures exceed a safe operating range. As the load on the condenser decreases, the alarm will turn off by itself. As the pressures on the condenser continues to rise, the audible alarm\* will stay on for longer periods of time. To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will remain until the filter/condenser has been cleaned. If the condition remains for 24 hours, the audible alarm\* will sound again and visual display will read Call Service.

**POSSIBLE CAUSES:**

- Inadequate air flow through condenser unit
- Discharge sensor has failed high.



**Sensor Failures:** The audible alarm\* will sound and the display will read **SN1, SN2, SN3** when any of the unit sensors fail to operate. To turn off the audible alarm\*, press the alarm cancel button. The visual alarm text will remain until the sensor has been replaced. Depending on the function of the sensor, the audible alarm\* will sound again in either 5 minutes or 24 hours.  
**\*Not available on remote models.**



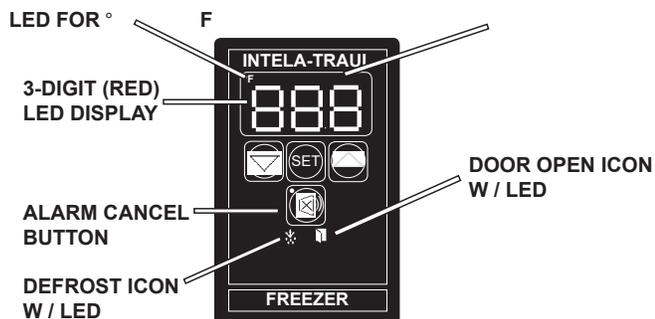
**Run Error:** The audible alarm will sound and the display **rUn Err** when the compressor has run continuously for over 24 hours. To turn off the audible alarm, press the alarm cancel button. The visual text will remain until the issue is fixed



**Defrost Error:** The audible alarm will sound and the display will read **DEF Err** when defrost does not terminate on temperature during a 36 hour period.

## VII. INTELA-TRAUL® (continued)

### VII. c - CONTROL PANEL:



### VII. d - NOTES TO THE USER:

You only have 20-30 seconds between button pushes. If you take longer than 30 seconds, the controller will revert back to displaying the cabinet temperature. If you enter the wrong security code, the controller will revert back to displaying the cabinet temperature. You can exit the parameters at any time by pressing the alarm cancel button or by waiting 20-30 seconds.

### VII. e - ENTER THE CUSTOMER ACCESS: This is required to set any of the control parameters

Use the security code 0, A, 1  and the following instructions:

Press the set button  . The display will read  Customer/Service Access.

Press the set button  .

The display will show three zeros with the left zero flashin  .

Press the set button  .

The display will show three zeros with the center zero flashin  .

Press the down arrow key  to sequence through F, E, d, C, b, A, 9, 8, 7,...etc.

When you reach A press set  .

The display will show zero, A, zero with the right zero flashin  .

Press the up arrow key  to sequence through 1, 2, 3, 4, 5, 6, 7, 8, 9, A, b,...etc.

When you reach 1 press set  .

The display will read  Thermostat Set Point. Press  to view and  again to exit.

You are now in the **CUSTOMER / SERVICE PARAMETERS**.

## VII. INTELA-TRAUL® (continued)

### VII. f - CUSTOMER SERVICE PARAMETERS:

Listed below are the available parameters in the order they appear, using the down arrow key on the controller. You can use either the up or down arrow keys to scroll through the options.

	Thermostat Set Point		Defrost Lockout 2
	Set Point Differential		Defrost Lockout 3
	Temperature Scale*		Defrost Lockout 4
	Audible Alarm Style*		Dew Point Compensation Factor*
	Time (24-hour clock)*		Room Temperature Offset
	Date (month - day - year)*		Evaporator Coil Sensor
	Daylight Savings *		Discharge Line Sensor
	Defrost Lockout 1		Start Manual Defrost
	Cabinet Air Sensor Temp		

\*Available on Hot Food units.

### VII. g - ADJUSTING THE THERMOSTAT SET POINT:

This parameter sets the low point of the desired cabinet temperature range. Typically, freezers will range from -4° F to 0° F (-19° C to -18° C) and refrigerators will range from 36° F to 40° F (2° C to 4° C) for this parameter setting. This parameter is preset at the factory and does not have to be adjusted unless the customer chooses to do so.

Follow the instructions to enter the customer access code on page 10. When the control

display reads  Thermostat Set Point. Press the set button .

Use the arrow keys   to adjust the temperature to your desired setting.

When the display shows the temperature you want press the set button .

The display will then read  Thermostat Set Point.

You can use the up or down arrow keys to scroll to the next parameter  .

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. h - ADJUSTING THE THERMOSTAT SET POINT Differential:

This parameter sets the set point differential of the desired cabinet temperature range. Typically, freezers and refrigerators will range from 2° F to 5° F for this parameter setting. This parameter is preset at the factory and does not have to be adjusted unless the customer chooses to do so. Set point differential determines the cabinet temperature at which the compressor come on.

Follow the instructions to enter the customer access code on page 10. When the control

displays  Thermostat Set Point, press the down arrow key  until the control display reads  Thermostat Set Point Differential. Press the set button  .

Use the arrow keys   to adjust the temperature to your desired setting.

When the display shows the temperature you want press the set button  .

The display will then read  Thermostat Set Point.

You can use the up or down arrow keys to scroll to the next parameter    
or press the alarm cancel button to exit  .

### VII. i - CHANGING THE TEMPERATURE SCALE:

The temperature scale determines if the temperature displayed will be in degrees Fahrenheit or degrees Celsius.

Follow the instructions to enter the customer access code on page 10. When the control

displays  Thermostat Set Point, press the down arrow key  until the control display reads  Temperature Scale. Press the set button  .

The display will start with the current setting either  for degrees Fahrenheit or  for degrees Celsius. Use the arrow keys   to toggle between the options.

When the display shows the scale you want press the set button  .

The display will then read  Thermostat Set Point.

You can use the up or down arrow keys   to scroll to the next parameter  
or press the alarm cancel button to exit  .

## VII. INTELA-TRAUL® (continued)

### VII. j - SETTING THE 24-HOUR CLOCK:

The internal timeclock must be set in order for the data storage memory to correctly log events and to allow any defrost lockout to occur at the correct time of day. If the clock is not set, the control assumes the time is 12 a.m. at the time power is supplied to the unit. The hours on a 24-hour time clock read the following way:

H01 = 1:00 a.m.	H07 = 7:00 a.m.	H13 = 1:00 p.m.	H19 = 7:00 p.m.
H02 = 2:00 a.m.	H08 = 8:00 a.m.	H14 = 2:00 p.m.	H20 = 8:00 p.m.
H03 = 3:00 a.m.	H09 = 9:00 a.m.	H15 = 3:00 p.m.	H21 = 9:00 p.m.
H04 = 4:00 a.m.	H10 = 10:00 a.m.	H16 = 4:00 p.m.	H22 = 10:00 p.m.
H05 = 5:00 a.m.	H11 = 11:00 a.m.	H17 = 5:00 p.m.	H23 = 11:00 p.m.
H06 = 6:00 a.m.	H12 = 12:00 p.m.	H18 = 6:00 p.m.	H24 = 12:00 a.m.

Follow the instructions to enter the customer access code on page 10. When the control

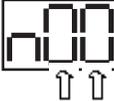
displays  Thermostat Set Point, press the down arrow key  until the control

display reads  Clock. Press the set button .

The display will show  Hours. The right two numbers will be flashing

Use the arrow keys   to set the hour.

When the correct hour is displayed, press the set button .

The display will show  Minutes. The right two numbers will be flashing

Use the arrow keys to set the minutes  .

When the correct minutes are displayed, press the set button .

The display will then read  Thermostat Set Point.

You can use the up or down arrow keys   to scroll to the next parameter

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. k - SETTING THE DATE:

The date must be set in order for the data storage memory to correctly log events. Follow the instructions to enter the customer access code on page 10. When the control displays  Thermostat Set Point, press the down arrow key  until the control display reads  Date. Press the set button . The display will show  (year). The right two numbers will be flashing. Press the arrow keys   to set the year. When the correct year is displayed, press the set button . The display will show  (month). The right two numbers will be flashing. Use the arrow keys   to set the month. When the correct month is displayed, press the set button . The display will show  (day). The right two numbers will be flashing. Press the arrow keys   to set the day. When the correct day is displayed, press the set button . The display will then read  Thermostat Set Point. You can use the up or down arrow keys   to scroll to the next parameter, press the alarm cancel button to exit .

### VII. l - SETTING DAYLIGHT SAVINGS TIME:

This parameter is preset at the factory to automatically adjust the 24-hour clock for Daylight Savings Time. Follow the instructions to enter the customer access code on page 10. When the control displays  Thermostat Set Point, press the down arrow key  until the display reads  Daylight Savings Time. Press the set button . The display will show  Daylight Savings Time (Yes, automatically adjust for Daylight Savings Time). For "YES," press the set button , for "NO" press the up or down arrow key  . The display will read  Daylight Savings Time (no). Press the set button . The display will read  Thermostat Set Point. You can press the the up or down arrow keys   to scroll to the next parameter or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. m - STARTING A MANUAL DEFROST CYCLE:

This parameter allows a service technician to start a defrost cycle at any time. This parameter will override any lockout settings.

Follow the instructions to enter the customer access code on page 10. When the control

displays  Thermostat Set Point, press the down arrow key  until the control display reads  Start Manual Defrost.

Press the set button .

The display will show  (OFF).

Press either arrow key   (ON).

The display will show .

Press the set button .

The display will then read  and start the defrost cycle immediately.

### Reach-In/Roll-In Models



The defrost icon will be lit, and the display will read  when the unit is in defrost.

**NOTE:** Traulsen refrigerator units also have an off-cycle defrost once an hour, at which time the control will read . This defrost is time terminated and can last 10 minutes (dEF will be displayed for 22-27 minutes).

## VII. INTELA-TRAUL® (continued)

### VII. n - SETTING THE DEFROST LOCKOUTS:

The defrost lockout parameters allow the customer to prevent the unit from going into a defrost cycle for two hours during a set timeframe. Customers can set up to four defrost lockout parameters. They are all programmed the same way. The parameters will be set for the time the lockout is to start. The controller automatically calculates 2 hours from that setting. The options are similar to the 24-hour clock settings and are in 30-minute increments. Each of the lockout parameters covers 6 hours of the 24-hour clock. Note: The 24-hour clock must be set for this feature to operate at the correct time of day. See "Setting the 24-Hour Clock" on page 13.

Sample:



OFF

020 = 2:00 a.m.

023 = 2:30 a.m.

030 = 3:00 a.m.

033 = 3:30 a.m.

040 = 4:00 a.m.

043 = 4:30 a.m.

050 = 5:00 a.m.

053 = 5:30 a.m.

060 = 6:00 a.m.

063 = 6:30 a.m.

070 = 7:00 a.m.

073 = 7:30 a.m.

080 = 8:00 a.m.



OFF

080 = 8:00 a.m.

083 = 8:30 a.m.

090 = 9:00 a.m.

093 = 9:30 a.m.

100 = 10:00 a.m.

103 = 10:30 a.m.

110 = 11:00 a.m.

113 = 11:30 a.m.

120 = 12:00 p.m.

123 = 12:30 p.m.

130 = 1:00 p.m.

133 = 1:30 p.m.

140 = 2:00 p.m.



OFF

140 = 2:00 p.m.

143 = 2:30 p.m.

150 = 3:00 p.m.

153 = 3:30 p.m.

160 = 4:00 p.m.

163 = 4:30 p.m.

170 = 5:00 p.m.

173 = 5:30 p.m.

180 = 6:00 p.m.

183 = 6:30 p.m.

190 = 7:00 p.m.

193 = 7:30 p.m.

200 = 8:00 p.m.



OFF

200 = 8:00 p.m.

203 = 8:30 p.m.

210 = 9:00 p.m.

213 = 9:30 p.m.

220 = 10:00 p.m.

223 = 10:30 p.m.

230 = 11:00 p.m.

233 = 11:30 p.m.

240\* = 12:00 a.m.

243\* = 12:30 a.m.

010 = 1:00 a.m.

013 = 1:30 a.m.

020 = 2:00 a.m.

\* Denotes not available.

A lockout cannot be programmed to start at 12:00 a.m. or 12:30 a.m. due to conflicts with other internal programs. The defrost lockouts cannot be programmed to run back-to-back. For example, if dL1 is set to 080, then a defrost cycle would be locked out from 8:00 a.m. to 10:00 a.m. Because of the dL1 setting the dL2 parameter would not let the user choose a lockout start time before 10:30 a.m. All lockouts are preset at the factory to OFF.

Follow the instructions to enter the customer access code on page 10. When the control

displays Thermostat Set Point, press the down arrow key until the control the

control display reads or . Press the set button .

The display will show Off. Press the arrow keys to set the start time.

When the correct time is displayed, press the set button .

The display will then read Thermostat Set Point.

You can press the up or down arrow keys to scroll to the next parameter

or press the alarm cancel button to exit .

## VII. INTELA-TRAUL® (continued)

### VII. o - ADJUSTING THE ROOM TEMPERATURE OFFSET:

The room temperature offset parameter allows a service technician or end user the ability to have the display show a temperature that is within three degrees of the actual temperature being read by the cabinet air sensor. This allows for continuity of reading between different temperature reading devices. (i.e.: thermistor Vs thermocouple Vs hand held thermometer) This parameter is preset at the factory to "0" or no offset.

Follow the instructions to enter the customer access code on page 10. When the control displays

 Thermostat Set Point, press the down arrow key  until the control display reads 

Room Temperature Offset. Press the set button . Use the arrow keys   to adjust the offset to your desired setting. When the display shows the offset you want press the set button .

The display will then read  Thermostat Set Point. You can use the up or down arrow keys

  to scroll to the next parameter or press the alarm cancel button to exit .

### VII. p - SETTING THE AUDIBLE ALARM STYLE:

This parameter will allow the customer to turn on/off the audible alarm feature on the INTELA-TRAUL® control. The audible alarm is preset from the factory to OFF. The customer can choose between an audible alarm that sounds for 3 seconds then automatically turns off, or a continuous audible alarm that must be manually acknowledged. Regardless of this feature's setting, visual alarm text will display when conditions warrant.

To adjust this setting, follow the instructions to enter the customer access code on page 10. When

the control displays  Thermostat Set Point, press the up arrow key  until the display reads  Audible Alarm Style. Press the set button . The display will read  OFF.

Use the arrow keys   to scroll between  for the 3-Second Audible Alarm Burst

or  for Continuous Audible Alarm. When the display shows your choice of style, press the set

button . The display will then read  thermostat Set Point. Use the arrow keys 

 to scroll to the next parameter or press the Alarm Cancel Button  to exit.

## VII. INTELA-TRAUL® (continued)

### VII. q - VIEWING SENSOR TEMPERATURES:

These parameters allow a service technician or customer to view the temperature of all sensors within the unit. The temperatures cannot be adjusted.

Follow the instructions to enter the customer access code on page 10. When the control displays

Thermostat Set Point  , press the DOWN arrow key  until the display reads  Cabinet Air Sensor, Evaporator Coil Sensor,  and Discharge Line Sensor  or press the SET button  . The display will read Thermostat Set Point  .

Press the UP or DOWN arrow keys   to scroll through the parameters or press the ALARM CANCEL button  to exit.

### VII. r - DOOR OPEN ICON:

The door open icon is located on the control face, directly below the Alarm Cancel button (On/Off button for heated cabinet models). This feature illuminates on all solid and hinged glass door models<sup>1</sup> whenever one or more of the doors is opened, and stops illuminating upon all doors being closed. There are no operator adjustable parameters for this feature.

1= This feature is not included on either fire-rated or sliding glass door models

### VII. s - HOT FOOD UNITS. ADJUSTING THE THERMOSTAT & TURNING THE UNIT OFF/ON:

This parameter sets the desired cabinet temperature. Please note that hot food units are delivered from the factory set to the OFF position.

Follow the instructions to enter the customer access code on page 10. When the control reads

 Thermostat Set Point, press the set button  . Use the arrow keys   to adjust the temperature to your desired setting. When the display shows the temperature you want press the set button  . The display will then read  Thermostat Set Point. You can use the up or down   arrow keys to scroll to the next parameter or press the alarm cancel button  to exit.

## VII. INTELA-TRAUL® (continued)

### VII. t - HOT FOOD UNITS. TURNING THE UNIT OFF/ON:

After the temperature has been set, the customer can continuously turn the unit OFF and then back ON to the same temperature. To turn the unit ON /OFF press the alarm cancel button  , (please note that this feature is not available on versions of the control manufactured prior to September 2000), or if an alarm warning condition is present, use the alternative ON/OFF activation method.

To turn the unit ON/OFF using the alternative method, press both arrows   at the same time, the set temperature will remain in memory.

### VII. v - HOT FOOD UNITS. TEMPERATURE ADJUSTMENT:

Press the **SET** button  and the **UP ARROW** button  at the same time. The display will flash the current temperature setting or **OFF** (if the unit is turned off). Use the **UP**  or **DOWN ARROW**  buttons to adjust your desired temperature setting (temperature range is 140° - 180° F, and OFF) then press the **SET** button . The display will go back to reading cabinet temperature. If **OFF** is selected the display will then read **OFF**. **NOTE:** If you wish to change the set temperature at anytime follow this procedure.

These models also include a "One-Time Temperature Setting Adjustment" feature. Upon start-up, the unit will warm-up to the last temperature you had set for it, unless changed.

## VIII. TROUBLE SHOOTING GUIDE

FIND YOUR PROBLEM HERE	REMEDY
1. Condensing unit fails to start.	<ul style="list-style-type: none"> <li>a. Check if cord &amp; plug has been disconnected.</li> <li>b. Check INTELA-TRAUL® temperature setting.</li> </ul>
2. Condensing unit operates for prolonged periods or continuously.	<ul style="list-style-type: none"> <li>a. Are doors closing properly?</li> <li>b. Dirty condenser or filter. Clean properly.</li> <li>c. Evaporator coil iced. Needs to defrost. See instructions for setting a manual defrost cycle on page 15.</li> <li>d. Shortage of refrigerant, call service.</li> </ul>
3. Food compartment is too warm.	<ul style="list-style-type: none"> <li>a. Check door(s) and gasket(s) for proper seal</li> <li>b. Perhaps a large quantity of warm food has recently been added or the door was kept open for a long period of time, in both cases, allow adequate time for the cabinet to recover its normal operating temperature.</li> <li>c. INTELA-TRAUL® setting too high, readjust per instructions on page 11.</li> </ul>
4. Food compartment is too cold.	<ul style="list-style-type: none"> <li>a. Perhaps a large quantity of very cold or frozen food has recently been added. Allow adequate time for the cabinet to recover its normal operating temperature.</li> <li>b. Adjust the INTELA-TRAUL® to a warmer setting, see page 12.</li> </ul>
5. Condensation on the exterior surface.	<ul style="list-style-type: none"> <li>a. Check door alignment and gaskets for proper seal.</li> <li>b. Condensation on the exterior surface of the unit is perfectly normal during periods of high humidity. However, to alleviate the condition, adjust the INTELA-TRAUL® "Dewpoint Compensation Factor," see page 17.</li> </ul>
6. Compressor hums but does not start.	<ul style="list-style-type: none"> <li>a. Call for service.</li> </ul>
7. Door open icon continually illuminated.	<ul style="list-style-type: none"> <li>a. Door open, close door.</li> <li>b. Faulty door switch, replace door switch.</li> </ul>
8. Door open icon does not illuminate.	<ul style="list-style-type: none"> <li>a. Faulty door switch, replace door switch.</li> </ul>
9. Evaporator fans not operating.	<ul style="list-style-type: none"> <li>a. Defrost cycle in progress (freezers only).</li> <li>b. Other, contact service.</li> </ul>

## XI. SPARE PARTS LIST

PART	PART #	DESCRIPTION
Bulb, Fluorescent	337-27690-00	Replacement bulb for fluorescent light model
Bulb, Incandescent	378-29776-00	Replacement bulb for incandescent light models
Bulb Cover	337-30858-00	Replacement bulb cover for incandescent light models
Caster, 6" High	344-13140-01	Optional caster for all reach-in models
Caster, 4" High W/O Brake	SMO-28627-00	Optional lower height caster
Caster, 4" High W/Brake	SMO-28628-00	Optional lower height caster
Caster Bolt (4 req'd per caster)	351-25542-00	Bolt for above
Door Handle, Stainless Steel	344-37690-00	Replacement handle for solid door units
Door Lock, Sliding Glass	346-60005-00	Jewelers type door lock for sliding glass door model
Hinge Cam	344-28488-00	Replacement hinge cam
Hinge Cover	344-28486-00	Replacement hinge cover
Hinge, Spring Assist	SER-29021-03	Alternative hinge, spring assist
Hinge Assembly W/Stop Feature	SER-40677-02	Alternative hinge, stop feature
Hinge Assembly	SER-28583-00	Replacement hinge assembly
Key, Master	346-29467-00	Replacement key for solid door units
Leg, 4" High Adjustable	344-29558-00	Replacement or optional leg
Leg, 6" High Adjustable	344-13168-01	Replacement leg
Shelf Pin	344-24759-02	Replacement shelf pin
Shelf Clip	344-08982-00	Replacement shelf clip for pilasters
Tray Slide, #4 Chrome Rod Type	340-04842-00	Tray slide for rim support of 18" x 26" pan
Tray Slide, Universal	719-07805-00	Tray slide for 18" x 26", 14" x 18" or 12" x 20" pan
Tray Slide, #1	719-20236-00	Tray slide for 18" x 26" or 14" x 18" pan
Coil Sensor	337-60071-02	Coil Sensor For Microprocessor Control
Discharge Sensor	337-60072-02	Discharge Line Sensor For Microprocessor Control
Cabinet Sensor	337-60069-02	Cabinet Sensor For Microprocessor Control
Horn	337-60070-00	Horn For Audible Control Alarms

## XII. STAINLESS STEEL OVERVIEW

### XII. a - INTRODUCTION:

All Traulsen R & A Series Refrigerator, Freezer, Dual-Temp and Heated Cabinet models are constructed with a high quality 430 series, 20 gauge stainless steel exterior finish (front, sides and doors). The interior finish on these same R-Series models are constructed using 300 series stainless steel (anodized aluminum is used for A-Series).

The stainless steel finish on Traulsen R & A Series should retain its appearance throughout the products usable lifetime. However, some care is required to maintain this appearance. The following paragraphs will provide a guideline on proper care of the exterior/interior finish, as well as some suggestions on how to repair a finish which has been marred due to adverse environmental conditions or improper jobsite care.

### XII. b - STAINLESS STEEL, HOW IT WORKS:

The process by which stainless steel retains its appearance is a result of its type of metal alloy. Steel is a composite of metals combined in a specific industrial process. Stainless steel contains a high percentage of chromium, the addition of which provides both its appearance, and a microscopic surface layer protecting the steel underneath from corrosion. This external layer acts as a barrier, preventing typical oxidation of the steel. Remove this barrier, and the environment will eventually corrode the metal, marring its appearance.

### XII. c - UNDERSTANDING THE CAUSES OF CORROSION:

Corrosion to stainless steel can only be caused in one of four specific ways

#### 1) **ABRASION**

Abrasion can be caused during routine cleaning of the metal, either by use of an abrasive cleanser, or use of an abrasive device, such as a metal scouring pad. Abrasion can also be caused by contact with other hard surfaces, such as nearby equipment, walls or tools. Special care should be taken to position your unit properly to prevent accidental dents and scratches.

#### 2) **WATER**

Water everywhere contains various deposits, or solids, which as the water dries or evaporates, can leave spots behind. The spots may eventually cause corrosion if not removed.

#### 3) **CHEMICALS OR WATER CONTAINING CHLORIDES**

Chlorides, such as found in water or many cleaning materials are especially corrosive to stainless steel. Daily janitorial duties, such a floor mopping, can splash water containing chlorinated cleansers against the front and sides of a Traulsen refrigeration product, resulting in corrosion. Avoid use of these on or around a Traulsen refrigeration product if at all possible.

### XII. c - UNDERSTANDING THE CAUSES OF CORROSION:

#### 4) **PROLONGED CONTACT WITH FOOD PRODUCT**

Many food products, such as milk and carbonated sodas, contain acids which may damage the protective layer of stainless steel. All food and beverage spills should be cleaned up promptly to avoid possible stains and corrosion.

## XIII. CARE OF STAINLESS STEEL

### XIII. a - USING THE PROPER TOOLS:

Use of proper cleaning materials will do much to prolong the appearance of your Traulsen refrigeration product. We particularly encourage the use of either plastic scouring pads or soft cloths for cleaning stainless steel.

Soft nylon scouring pads can also be used, however care has to be used to insure that all scrubbing is done in the direction of the metals "GRAIN." Because metals are crystalline in nature, when they are in a solid state the individual ions line up to form visible grain lines. Use of a soft nylon scouring pad in a direction opposite of the grain will mar its luster. Always do so "PARALLEL" to the grain.

There are several types of tools which should **NEVER BE USED** when cleaning stainless steel, these include:

- WIRE BRUSHES
- METAL SCOURING PADS
- SANDPAPER
- SCRAPERS & PUTTY KNIVES

Use of any of these tools will result in scratches or removal of the stainless steel's protective layer, which will eventually lead to corrosion and rust.

### XIII. b - USING THE RIGHT CLEANSER:

Avoid all cleaning products containing chloride ingredients. Use of a cleanser specifically designed for stainless steel is highly recommended. You may find yourself in a situation where you are uncertain if a particular cleaning product contains any chlorides. If unsure, its probably best to just assume that it does and avoid its use in cleaning a Traulsen refrigeration product.

Also to be avoided are cleaning products which contain "QUATERNARY SALTS." These salts can literally attack the stainless steel's protective layer, leading to corrosion and pitting of the steels surface.

After cleaning, it is important to always rinse the cleaned area thoroughly with cool, clean water (do not use hot water) and wipe completely dry using a paper towel or soft absorbent cloth.

Use of cleaning products designed for use on stainless steel, in conjunction with the proper tools, as outlined above will help retain the appearance of your Traulsen refrigeration product for years and years.

### **XIII. CARE OF STAINLESS STEEL(cont'd)**

#### **XIII. c - CLEANING SUMMARY - DO'S & DONT'S:**

To summarize the proper cleaning of Traulsen refrigeration products, always follow the below guidelines.

- DO** use only cleaning products designed for stainless steel, or cleaning products which do not contain chlorides.
- DO** use only non-abrasive cleaning materials, such as soft cloths or plastic scouring pads.
- DO** clean-up food and beverage spills ASAP.
- DO** scrub only in the direction of the grain when using soft nylon scouring pads.
- DON'T** use chlorinated cleansers or cleansers containing quaternary salts.
- DON'T** use abrasive cleaning materials or tools which can scratch the stainless steel's surface.

#### **XIII. d - DEALING WITH ACCIDENTAL CHLORIDE CONTACT:**

In the daily routine of a busy foodservice operation, your Traulsen refrigeration product may occasionally come in contact with chlorinated cleaners, such as when being splashed during mopping. Stain and corrosion problems resulting from this can be avoided by prompt action to remove this cleanser. Rinse the affected area(s) thoroughly with cool, clean water (do not use hot water) and wipe completely dry using a paper towel or soft absorbent cloth.

#### **XIII. e - PROTECTING THE STAINLESS STEEL SURFACE:**

Occasional use of a commercial stainless steel polish, such as "Sheila Shine," will help protect the surface of stainless steel. Follow the directions on the spray can for proper use.

### **XIV. CORROSION REMEDIES**

#### **XIV. a - DEALING WITH RUST AFTER THE FACT:**

Although Traulsen strongly recommends proper care and cleaning of stainless steel finishes in order to avoid rust and corrosion before it occurs, we recognize that it may occur occasionally as a result of the causes described in section one of this booklet.

To remove small quantities of rust from the surface of stainless steel, it is far preferable to deal with this when it first becomes visible. When rust occurs, do not allow it to remain for any period of time, and remove it using the following method:

**STEP ONE** - Use a lightly abrasive compound (free of harmful chlorides), such as "Bon Ami," on a soft cloth, to remove the rust. Care must be taken to rub this on the area of rust only in the direction of the stainless steel's grain.

**STEP TWO** - Once the rust is removed, clean the affected area thoroughly with a stainless steel cleaner (see sections II. a & b).

### **XIV. CORROSION REMEDIES**

#### **XIV. a - DEALING WITH RUST AFTER THE FACT (cont'd):**

**STEP THREE** - Apply a preservative polish, such as "Sheila Shine," to the affected area (see section II. e).

#### **XIV. b - DEALING WITH EXTREME RUST SITUATIONS:**

In the event that rust and corrosion were not dealt with promptly, more acute situations can be remedied as follows:

**NOTE: PROCEDURE REQUIRES USE OF AN ACID BASED SOLUTION - USE OF PROTECTIVE GLOVES AND EYEWEAR ARE REQUIRED BEFORE PROCEEDING**

**STEP ONE** - In a clean spray bottle combine water with "Zep FS Lime Remover" to make a 5 parts to 1 solution.

**STEP TWO** - Apply this solution to the affected area with either a clean cloth or sponge.

**STEP THREE** - After application, wipe the same area thoroughly clean with water only to remove any residue.

**STEP FOUR** - Once cleaned, apply a light coat of "Zep Restore" to the surface area. This will serve to preserve the metal and help prevent future rust from occurring.

**STEP FIVE** - Restore the remaining stainless steel surfaces to their original shine using "Zep Stainless Steel Polish."

Repeat steps one thru five if necessary for stubborn rust and corrosion areas.

#### **XIV. c - RESTORING THE PROTECTIVE LAYER:**

There are several products available on the market today which can actually help restore the "PASSIVATION" of stainless steel. "PASSIVATION" refers to the protective qualities of the non-reactive surface layer of stainless steel which prevents oxidation. Contact your cleaning supplier for product recommendations and more information.

## XV. WARRANTY INFORMATION



### **STANDARD DOMESTIC WARRANTY** (this warranty applies to units manufactured after January 01, 2013)

TRAULSEN warrants new equipment to the original purchaser, when installed within the United States against defective material and workmanship for three (3) years from the date of original installation. Under this warranty, TRAULSEN will repair or replace, at its option, including service and labor, all parts found to be defective and subject to this warranty. Warranty term begins upon the date of Installation, the date of End User Invoice or the date of Dealer Invoice, whichever is proven to occur latest, not to exceed 18 months from Dealer Invoice date (the "Warranty Period"). Warranty excludes components that are removable without tools.

The compressor part is warranted for an additional two (2) years. During this period TRAULSEN will supply replacement compressor(s) if deemed defective, however all installation, recharging and repair costs will remain the responsibility of the owner.

This warranty does not apply to damage resulting from fire, water, burglary, accident, abuse, misuse, transit, acts of God, terrorism, attempted repairs, improper installation by unauthorized persons, and does not apply to food loss.

For Traulsen units purchased with a remote feature, standard warranty will apply only to those components contained within the unit to the point of connection of the refrigeration lines leading to the remote condenser.

"Defective Part Return" – All claimed defective replacement part(s) must be returned to TRAULSEN for inspection within 30 days from the date of the repair. Failure to return all claimed defective part(s) to TRAULSEN will invalidate the warranty claim, this warranty statement, and forfeit payment for those repairs affected.

### **INTERNATIONAL COMMERCIAL WARRANTY**

TRAULSEN warrants to the original purchaser the Refrigeration Equipment shall be manufactured free from defects in material and workmanship under normal use and service for a period of one (1) year from date of shipment. Under this warranty, TRAULSEN will reimburse the purchaser for the replacement of any part of said equipment (excluding dryers & refrigerant gas) which then proves to be defective. This warranty does not apply to damage resulting from fire, water, burglary, accident, abuse, misuse, transit, acts of God, terrorism, attempted repairs, improper installation by unauthorized persons, and will not apply to food loss.

TRAULSEN'S standard warranty does not apply to Export Sales. Rather, for a period of one (1) year from date of original installation not to exceed Fifteen (15) months from date of shipment from factory, TRAULSEN: will, at Traulsen's sole discretion, replace or repair, F.O.B. factory, any defective parts normally subject to warranty and will not cover the cost of packing, freight or labor, such costs being the sole responsibility of the dealer.

**THERE ARE NO ORAL, STATUTORY OR IMPLIED WARRANTIES APPLICABLE TO TRAULSEN, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. TRAULSEN SHALL HAVE NO OBLIGATION OR LIABILITY FOR CONSEQUENTIAL OR SPECIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, INDIRECT, PUNITIVE DAMAGES, LOSS OF USE, LOSS OF PRODUCT, DOWN TIME OR LOST PROFITS, GROWING OUT OF OR WITH RESPECT TO THE EQUIPMENT OR ITS SALE, OPERATION OR USE, AND TRAULSEN NEITHER ASSUMES NOR AUTHORIZES ANYONE ELSE TO ASSUME FOR IT ANY OBLIGATION OR LIABILITY IN CONNECTION WITH THE EQUIPMENT OR ITS SALE, OPERATION OR USE OTHER THAN AS STATED HEREIN.**

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED AND CONSTITUTES TRAULSEN'S FULL OBLIGATION AND LIABILITY. WARRANTIES NOT AVAILABLE ON REMOTE MODELS.**

**HOURS OF OPERATION:**

Monday thru Friday 7:30 am - 4:30 pm CST



Quality Refrigeration

**Traulsen**

4401 Blue Mound Road Fort Worth, TX 76106  
Phone: (800) 825-8220 Fax-Svce: (817) 740-6757  
Website: [www.traulsen.com](http://www.traulsen.com)



Quality Refrigeration

# OPERATOR'S MANUAL

Instructions for the installation and operation of the optional NAFEM Data Protocol compliant communications gateway module for all Traulsen INTELA-TRAUL® equipped R and A Series models.



## NAFEM GATEWAY

MODEL

NDP1





# **Installation, Operation and Care of MODEL NDP1 NAFEM GATEWAY**

## **SAVE THESE INSTRUCTIONS**

### **GENERAL**

This manual is intended for the user who is already familiar with the NAFEM protocol and Ethernet connections. For more information see:

NAFEM DATA PROTOCOL USER MANUAL located at:  
<http://www.nafem.org/resources/tech/DataProtocol.cfm>

The NDP1 is a gateway device that, when used with compatible Traulsen equipment, can make the system NAFEM Data Protocol compliant. The NDP1 performs protocol conversion from MODBus over RS485 to TCP/IP over Ethernet. You do not have to be a computer expert to understand what the gateway can do for you and how it is going to be applied.

The first thing you need to know is that a protocol is simply a set of rules that instructs or tells the computer how it can communicate. It is like a language and the rules of grammar that we use to talk with each other. Computers talk to each other over wires or through radio waves using protocols. NAFEM has worked with its members to develop a 'common' protocol for use in foodservice equipment. Using this protocol, information about the equipment can be shared with a computer system. Information that may be shared could include HACCP data, asset information about the equipment, maintenance information and so forth.

Networking is very common in most office environments. The NAFEM Protocol uses networking concepts that are very typical. If you use the Internet on your computer at home, you are networking with computers all over the world. You may also use computers in your workplace to share POS or inventory data.

When your network administrator connects the gateway to the network and adds an application software package on the computer, you will be able to hook up from one to eight pieces of Hobart and Traulsen equipment that are NDP (NAFEM Data Protocol) compatible. These pieces of equipment will send data to a specified computer on site or at a central location. The data collected will be managed by an application software system installed on the target computer.

The kitchen equipment will run normally and have only a slight difference in the installation. When adding the Gateway to your facility, a network connection will start at either the target computer or the router to the Ethernet going to the Gateway. From this point an RS485 cable (like a telephone cable) will extend from the Gateway to the first piece of equipment. If more than one piece of equipment is to be connected, a "daisy chain" configuration will connect one unit to the other. A diagram of this configuration is shown on page 6.

The remainder of this manual gives further details to installing the NAFEM Data Protocol system in your facility. Your network administrator will be able to complete the installation hookup and software set-up.

## **PRODUCT OVERVIEW**

The model NDP1 has three physical connectivity points to the physical world:

- The device's EIA-485 serial communication port,
- The RJ45 Ethernet network communication port (10BaseT), and
- The power supply jack.

The NAFEM Gateway is a protocol converter that connects Hobart / Traulsen equipment to the NAFEM protocol using an Ethernet connection. The requirements are set forth by NDP using digital signal connectivity.

This Gateway device performs these tasks and achieves NAFEM Data Protocol compliance with the use of six firmware components: Poll Engine, Alarm Module, SNMP v1 Agent, Web Server, TFTP Client, and a Device Protocol Driver. In addition, a database resides within the gateway that contains the NAFEM Objects. This is where the information is exchanged between the NAFEM and MODBus elements.

The function of the gateway is to receive requests for reads and writes of NAFEM Objects. These objects are the registers within the target equipment. This request comes to the gateway in the format of the NAFEM protocol. The gateway converts the request into the appropriate format and communicates with the target equipment. If connected in a daisy chain configuration (page 6), up to 8 pieces of equipment can be connected to one gateway. The gateway can access up to 80 registers (i.e. 80 different pieces of data) divided between these targets. The information returned to the gateway from the target equipment is converted into the NAFEM protocol and sent to the SNMP Manager, the Web browser or the application software.

### **Network Services**

The NDP1 supports DHCP client, staticIP, and autoIP for address assignment. Normally you will not need to make any changes. Intelligence is employed within the gateway to revert to backup IP assignment methods if the primary method is unavailable.

# INSTALLATION

## PHYSICAL LOCATIONS

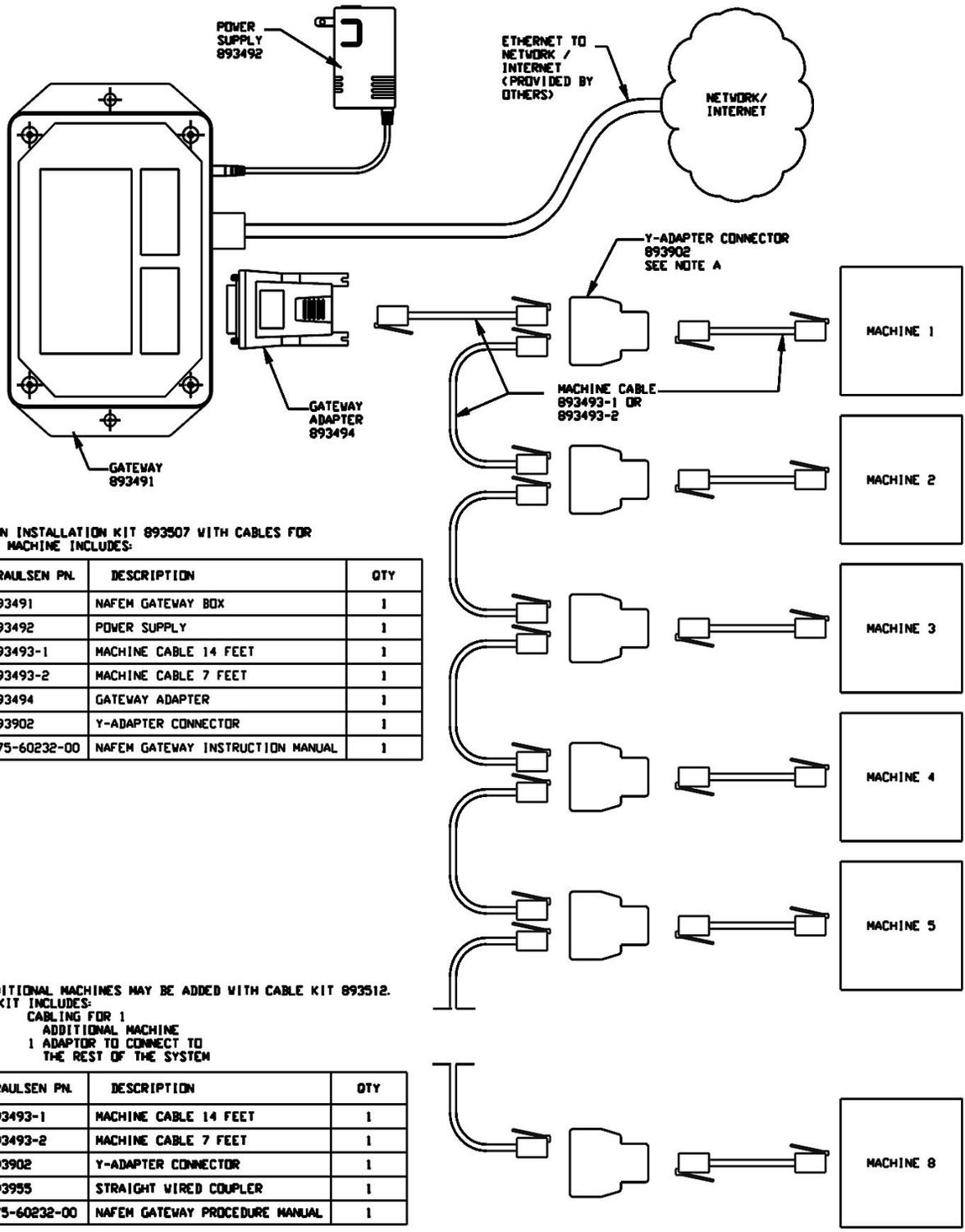
There must be no more than 160 feet of RS485 cable within a configuration having one Gateway. This means that one Gateway with up to 8 machines must have a total of no more than 160 feet of RS485 cable. A configuration with two Gateways and up to 16 machines total must have no more than 160 feet of RS485 cable in each Gateway cluster for a total of no more than 320 feet of RS485 cable for the two-Gateway configuration. A power adapter cord with six feet of lead is provided; 120 volts, 60 hertz, 1 phase grounded outlet is required. Power adapter cord must be plugged in prior to installation. The Gateway and power cord must be located away from areas that will be sprayed with water or any other liquids, and any devices that can emit electrical disturbances, such as microwave ovens, radios or other Gateways. The Power Supply must be installed such that condensate cannot drip down the cord into the 120 volt outlet. The Gateway and power cord must be located in an area where the ambient temperature is less than 100°F and where there is minimal risk of condensate. It is recommended that the Gateway be mounted above the equipment on the upper portion of a wall or above a dropped ceiling. Installation must be in accordance with all applicable local or national electrical codes.

## OPTIMUM PHYSICAL LOCATION CONFIGURATION

If multiple machines will be networked through the same Gateway, a daisy chain connection must be utilized. Refer to Installation on page 6 for details. One connection cable is provided. If more than one machine is to be connected, additional cables can be purchased from Traulsen (order kit number 893512). Traulsen suggests that the machines for any one Gateway be clustered within 15 feet of the Gateway regardless of the length of cable between the machines and the Gateway. If the machines are more than 15 feet away from the Gateway, a second Gateway should be used.

NOTE: NAFEM Data Protocol Gateway can be implemented in an Ethernet wireless configuration such as the 802.11b wireless protocol. Components to install in this manner are supplied by others. Connections between the target equipment and the Gateway must be hard wired with an RS485 connection cable.

# NAFEM Gateway Architecture – Possible Configurations

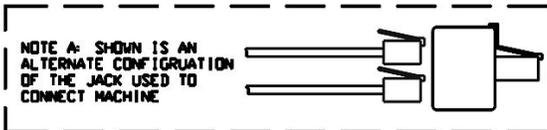


1. MAIN INSTALLATION KIT 893507 WITH CABLES FOR ONE MACHINE INCLUDES:

TRAUlsen Pn.	DESCRIPTION	QTY
893491	NAFEM GATEWAY BOX	1
893492	POWER SUPPLY	1
893493-1	MACHINE CABLE 14 FEET	1
893493-2	MACHINE CABLE 7 FEET	1
893494	GATEWAY ADAPTER	1
893902	Y-ADAPTER CONNECTOR	1
375-60232-00	NAFEM GATEWAY INSTRUCTION MANUAL	1

2. ADDITIONAL MACHINES MAY BE ADDED WITH CABLE KIT 893512. KIT INCLUDES:  
 CABLING FOR 1 ADDITIONAL MACHINE  
 1 ADAPTOR TO CONNECT TO THE REST OF THE SYSTEM

TRAUlsen Pn.	DESCRIPTION	QTY
893493-1	MACHINE CABLE 14 FEET	1
893493-2	MACHINE CABLE 7 FEET	1
893902	Y-ADAPTER CONNECTOR	1
893955	STRAIGHT WIRED COUPLER	1
375-60232-00	NAFEM GATEWAY PROCEDURE MANUAL	1



## Ethernet Wiring

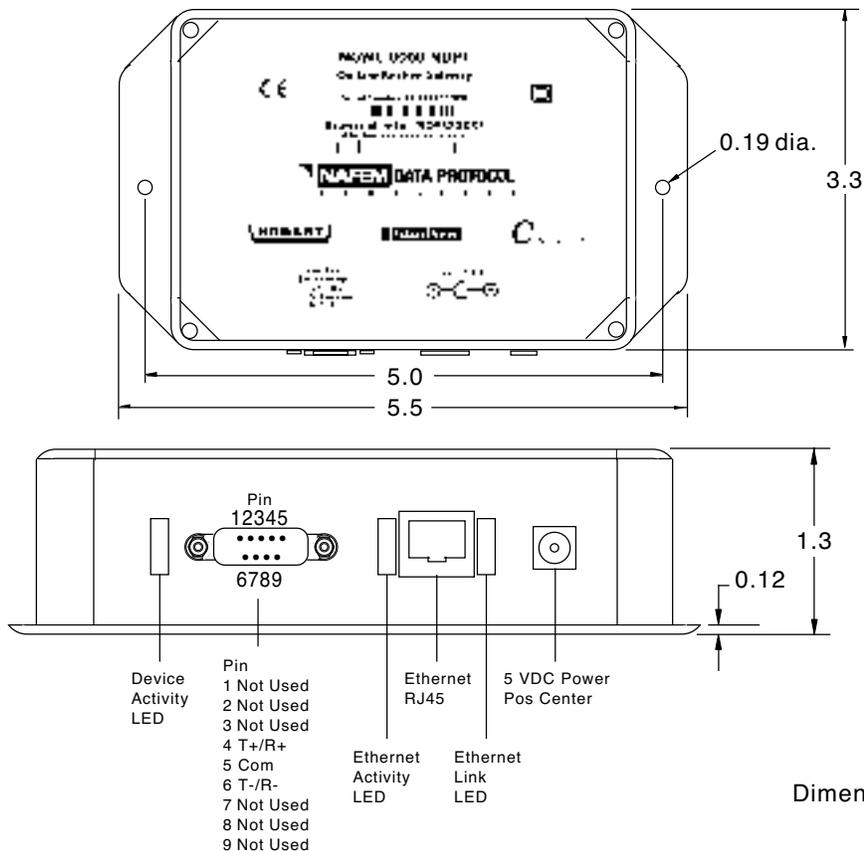
Connect an RJ-45 Ethernet jack to a Hub or Switch with standard CAT5 cable. The gateway is a 10BaseT device, so a switch is the best solution for a multi-speed network. The device can be connected directly to a computer's Ethernet jack with a crossover cable, provided by others.

## Authentication and Registration

Authentication and registration of the Gateway happens automatically once connections are made and may take up to 1 minute. Communication to the network is accomplished via the DHCP Client to a system DHCP service, if available. The result of the DHCP method will define the device's Internet Protocol address, SubNet mask and Default gateway. The Microsoft AutoIP scheme is employed to address possible networking environments where DHCP services are not available.

The Ethernet interface is designed to work without user intervention on most networks.

## Installation & RS485 Wiring



NOTE: If additional cables are needed for additional length or additional machines, purchase Traulsen Kit Number 893512.

NOTE: Use proper ESD handling procedures when making connections to unit. A UL® Listed Class 2 power supply is supplied.

If the Gateway is connected to a DHCP-enabled network, it can be browsed at the address listed next to "Browse at" on the Gateway label.

## **Installation and RS485 Wiring (continued)**

Connect one end of one RJ-12 Machine cable (Traulsen part no. 893493-1 or 893493-2) to the Gateway Adapter (Traulsen part no. 893494). Connect the Gateway Adapter to the Gateway. Connect the other end of the Machine Cable to one of the ports on the double port side of the Y-Adapter Connector (Traulsen part no. 893902). Connect one end of the second RJ-12 Machine Cable (Traulsen part no. 893493-1 or 893493-2) to the single port side of the Y-Adapter Connector. Connect the other end of the second Machine Cable to the machine. Refer to NAFEM Gateway Architecture — Possible Configurations on page 6 for instructions on how to connect and route the NAFEM cables between the Gateway and the machines.

## **RS485 and MODBus Settings**

All Traulsen machines have their bit rate set at 9600 bits per second. Refer to each machine's Operators manual or Service Department for specific instructions on how to verify the bit rate setting.

All machines must have unique MODBus IDs. Refer to each machine's Operators Manual or Service Department for specific instructions on how to verify the MODBus ID.

## GATEWAY CONFIGURATION

The Gateway may be configured via a web-based interface. To access this interface, open a web browser on a PC connected to the same LAN as the Gateway. In the address bar of the browser, type in either the IP address or the address printed on the Gateway label and press Enter. The configuration options are on the left panel (Fig. 1). All options can be configured individually. Three important options to note are:

- IP Address under Administration → Network
- Time and Date under Clock/Calendar → Clock
- Data Points to access under Gateway → Serial Port Entry

The first option set with the submit button will open a password dialogue box. The default user name is **new** and the password is **user**. For more information on how to change the user name and password or other configuration options, refer to the Watlow Manual located at:

[http://www.watlow.com/literature/prodtechinfo/files/controllers/nafem\\_b.pdf](http://www.watlow.com/literature/prodtechinfo/files/controllers/nafem_b.pdf)

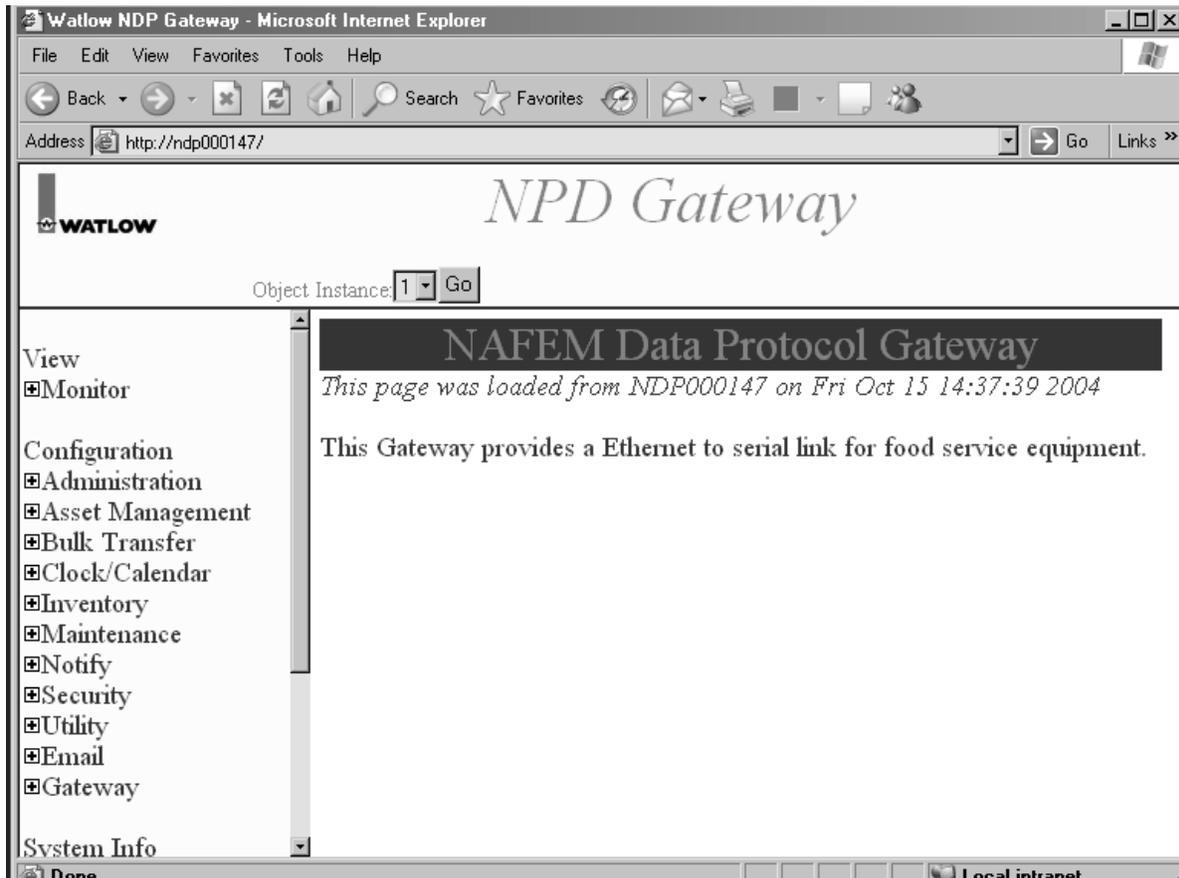


Fig. 1

# TROUBLESHOOTING

When the Poll Engine attempts to read from a remote device and an error occurs, the Poll Engine will immediately retry to read from the remote device. If all retries have failed, then the Poll Engine will increment the protocol read message failure count by one and attempt the next poll attribute. If all active attributes for a single device fail, then the poll engine will disengage the device from the poll cycle.

When the Poll Engine attempts to write to a remote device and an error occurs, the Poll Engine will immediately retry to write to the remote device. If all retries have failed, then the Poll Engine will increment the protocol write message failure count by one and reset the programmable attribute for the write operation to the previous write value.

## LED DESCRIPTIONS (Fig. 2)

The Ethernet Link LED is on continuously when there is an active Ethernet link between the Gateway and the rest of the network. If the LED is off at any time, check all power and network cables for proper connection.

The Ethernet Activity LED flashes intermittently as Ethernet traffic flows across the network to and from the Gateway. Any time the Gateway sends or receives data, the LED will flash and then turn off. If the LED remains off for an extended period, ensure that the Ethernet Link LED is on and that all power and network cables are properly connected.

The Device Activity LED flashes intermittently as serial data flows between the Gateway and the machines connected to it via the RS485 port. Any time the Gateway sends or receives data the LED will flash briefly and then turn off. The configuration of the Gateway will determine the interval between flashes. Typically, this interval is between 30 seconds and 5 minutes. If there is no activity and the LED remains off for an extended period, ensure that the Gateway is properly enabled, all cables are properly connected and all machines connected to the Gateway are powered on.

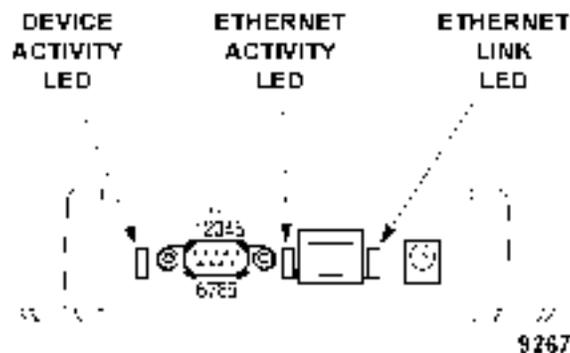


Fig. 2

**PROBLEM****SUGGESTED CORRECTIVE ACTION**

<p>The computer is not recording data for any of the machines.</p>	<ol style="list-style-type: none"> <li>1. Ensure that all machines to be monitored are plugged in and turned on.</li> <li>2. Ensure the Gateway is plugged in and connected to the network and the machines.</li> <li>3. Ensure the data cables are properly connected to the monitored machines.</li> <li>4. Try to ping the Gateway (refer to instructions, page 13).</li> <li>5. Restart the logging software (this may require rebooting the computer).</li> <li>6. Contact your IT professional for further assistance.</li> </ol>
<p>The computer logging program does not launch.</p>	<ol style="list-style-type: none"> <li>1. Ensure other programs launch properly (i.e. notepad).</li> <li>2. Reboot the computer.</li> <li>3. Contact the software vendor for further assistance.</li> </ol>
<p>A machine stopped working and none of the properly functioning machines are being logged.</p>	<ol style="list-style-type: none"> <li>1. Ensure that all machines that are not being logged are plugged in and turned on.</li> <li>2. Ensure that those machines still operate properly.</li> <li>3. Ensure the data cables are properly connected to the machines and Gateway in a daisy-chain fashion (refer to page 6).</li> <li>4. Contact your IT professional for further assistance.</li> </ol>
<p>A machine received service from a service technician and none of the machines are being properly logged.</p>	<ol style="list-style-type: none"> <li>1. Ensure that all machines that are not being logged are plugged in and turned on.</li> <li>2. Ensure that those machines still operate properly.</li> <li>3. Ensure the data cables are properly connected to the machines and Gateway in a daisy-chain fashion (refer to page 6).</li> <li>4. Contact your IT professional for further assistance.</li> </ol>
<p>The logging program stopped recording data for some, but not all, of the machines.</p>	<ol style="list-style-type: none"> <li>1. Ensure that all machines that are not being logged are plugged in and turned on.</li> <li>2. Ensure that those machines still operate properly.</li> <li>3. Ensure the data cables are properly connected to the machines and Gateway in a daisy-chain fashion (refer to page 6).</li> <li>4. Contact your IT professional for further assistance.</li> </ol>
<p>The logging software records unexpected values for several minutes after a system restart.</p>	<ol style="list-style-type: none"> <li>1. This is by design of the Gateway, logging software, and method of communication. The problem should correct itself within several minutes of being restarted.</li> </ol>
<p>The logging software needs to be restarted multiple times a day.</p>	<ol style="list-style-type: none"> <li>1. Unplug the Gateway from its power source for at least 60 seconds.</li> <li>2. Plug the Gateway back in and wait up to 5 minutes for data transfer to resume.</li> <li>3. Contact the software vendor for further assistance.</li> </ol>

**PROBLEM****SUGGESTED CORRECTIVE ACTION**

<p>The Gateway itself needs its power cycled multiple times a day.</p>	<ol style="list-style-type: none"><li>1. Ensure that the Gateway is away from other devices that could be sending out interfering signals, such as microwave ovens, radios, networking equipment and other Gateways.</li><li>2. Contact your local Traulsen Service team to replace the potentially faulty Gateway.</li></ol>
<p>Values recorded for one of the machines never changes.</p>	<ol style="list-style-type: none"><li>1. Ensure that all machines providing false readings are plugged in and turned on.</li><li>2. Ensure that all machines are operating properly.</li><li>3. Ensure correct readings are displayed on the machines.</li><li>4. Ensure the data cables are properly connected to the machines and Gateway in a daisy-chain fashion (refer to page 6).</li><li>5. Unplug the Gateway from its power source for at least 60 seconds.</li><li>6. Plug the Gateway back in and wait up to 5 minutes for data transfer to resume.</li><li>7. Contact your IT professional for further assistance.</li></ol>
<p>Values recorded for one machine are much higher or lower than what is expected.</p>	<ol style="list-style-type: none"><li>1. Ensure that all machines providing false readings are plugged in and turned on.</li><li>3. Ensure correct readings are displayed on the machines.</li><li>4. Ensure the data cables are properly connected to the machines and Gateway in a daisy-chain fashion (refer to page 6).</li><li>5. Unplug the Gateway from its power source for at least 60 seconds.</li><li>6. Plug the Gateway back in and wait up to 5 minutes for data transfer to resume.</li><li>7. Contact your IT professional for further assistance.</li></ol>
<p>The computer program launches, but nothing else seems to happen.</p>	<ol style="list-style-type: none"><li>1. Ensure that all machines to be monitored are plugged in and turned on.</li><li>2. Ensure the Gateway is plugged in and connected to the network and the machines.</li><li>3. Ensure that the machines being monitored are operating normally.</li><li>4. Attempt to ping the Gateway (refer to instructions, page 13).</li><li>5. Unplug the Gateway from its power source for at least 60 seconds.</li><li>6. Plug the Gateway back in and wait up to 5 minutes for data transfer to resume.</li><li>7. Contact your IT professional for further assistance.</li></ol>

## PING INSTRUCTIONS

Ping can be performed on most computer operating systems. To perform a 'ping' command from a 32-bit Windows machine (i.e. Windows 95, 98, Me, NT, 2000 or XP), follow instructions below.

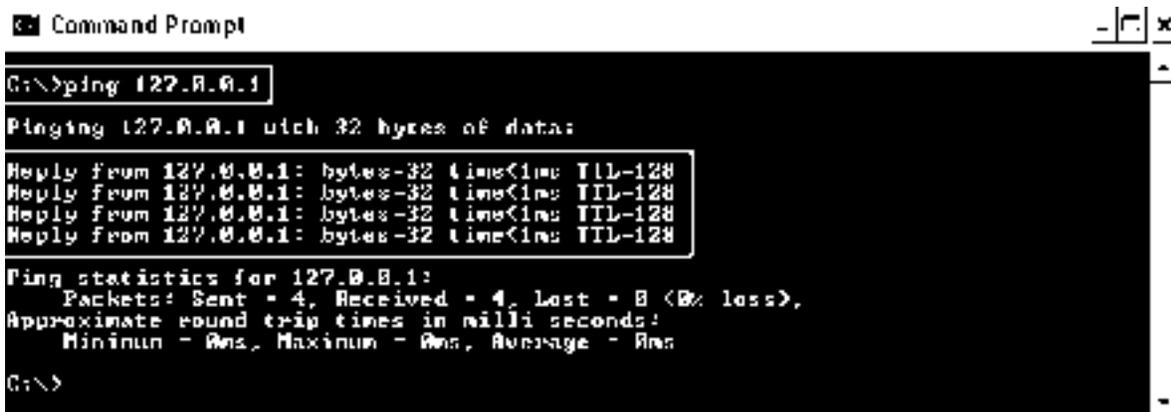
For operating systems other than Windows, contact your network administrator.

- 1) Click **start** on the menu bar
- 2) Click **Run**
- 3) In the dialog that appears, type the word **command** and then click **ok**
- 4) A Command Prompt (or MS-DOS box) will appear
- 5) At the command line, type **ping #.#.#.#**, where the **#.#.#.#** is the IP address of the Gateway that is having problems (as in the first line of Fig. 3). [You may have to get this number from your network administrator, manager or Help Desk.]
- 6) Press **Enter**

If the command is successful, meaning there is not a network communications problem between the Gateway and your PC, then you will receive text similar to that of the second box in Fig. 3.

If the command is unsuccessful, meaning there is a network communication or configuration error, you will receive text similar to that of Fig. 4.

### Successful ping



```
Command Prompt
C:\>ping 127.0.0.1

Pinging 127.0.0.1 with 32 bytes of data:

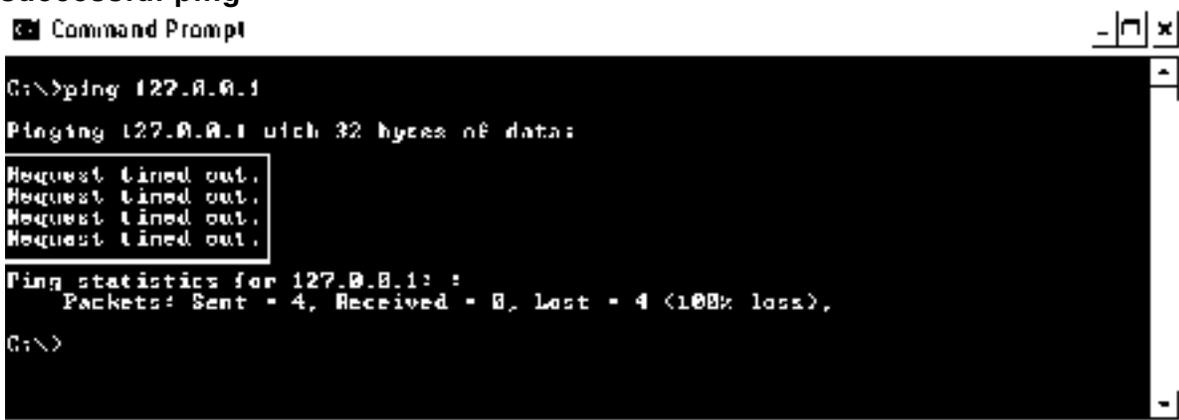
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128

Ping statistics for 127.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Fig. 3

### Unsuccessful ping



```
Command Prompt
C:\>ping 127.0.0.1

Pinging 127.0.0.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 127.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

Fig. 4

## GLOSSARY

Address	An identifiable location. A location within memory. A location of a node within a network. A way of identifying a network, sub network, or node.
Alarm Module	A portion of the firmware code that monitors data from the poll engine and alerts the user (for example via E-mail) about conditions that fall outside of preset tolerances.
Auto IP	Microsoft's implementation of Automatic Private IP Addressing (APIPA). An Auto IP-enabled device will automatically configure itself to an IP address in the range of 169.254.0. through 169.254.255.254 with a subnet mask of 255.255.0.0 if it cannot reach a DHCP server or if it does not have a fixed, hard-coded IP address.
Baseband	A type of channel where data transmission is carried across only one communication channel. Baseband supports one signal transmission at a time. Ethernet is an example of baseband technology.
Bit rate	The rate, usually expressed in seconds, that bits are transmitted.
Broadcast	Simultaneous transmission of the same data to all nodes connected to a network.
Cat5 Cable	Stands for Category 5 cable which can be used for Ethernet networks. Many 10BaseT networks use this standard, which defines how the cable is manufactured and what the maximum data throughput on the cable is. Traulsen recommends the use of Cat5, Cat5e, or better cable to communicate between the NAFEM Gateway and the rest of the network.
Client	A program that can be invoked by a user; a user being a human or a program.
Client/Server	Terms used to refer to a peer to peer method of operation of applications within hosts.
Daisychain Topology	The configuration of network devices. Examples include: BUS, Star, Ring, Dual Ring, etc.
Data Link Protocol	A prescribed way of handling the establishment, maintenance, and termination of a logical link between two nodes.
Default Gateway	The network gateway that a computer will use to access another network if another gateway is not specified for use.
Destination Address	In an Ethernet network, this refers to the target node address.
Device Protocol Driver	Software that links the operating system to a peripheral device using a specific protocol. The driver contains the precise machine language necessary to perform the functions requested by the application.
DHCP (Dynamic Host Configuration Protocol)	Software that automatically assigns IP addresses to client stations logging onto a TCP/IP network. It eliminates having to manually assign permanent IP addresses

Domain Name System	A service used with TCP/IP to replace the previous method of keeping track with host names, aliases, and internet addresses. The domain name service is a distributed database used to convert node names to internet addresses.
ESD	Electrostatic discharge.
Ethernet	A data link level protocol. It comprises layers one and two when compared to the OSI reference model. Ethernet is a broadcast technology and can be implemented with different media types, such as thick or thin coaxial cable or twisted pair cable. Ethernet uses CSMA/CD mechanism to access the medium.
Ethernet Address	A 48 bit address, commonly referred to as a hard address. This address identifies an Ethernet network interface card (NIC), thus identifying a host hardware address.
Firmware	Computer programs contained permanently in a hardware device (as a read-only memory)
Interface	A shared point between two entities, either software or hardware.
Internet Address	A 32-bit address used to identify hosts and networks.
Internet Protocol (IP)	The part of the TCP/IP protocol that handles routing of data.
Link	Used to refer to a connection between two end points.
Local Area Network (LAN)	A collection of computer related equipment connected in such a way that communication can occur between all nodes connected to the medium.
Management Information Base (MIB)	A database containing configuration and statistical information about nodes on a network.
MODBus	A high level protocol for industrial networks, it defines a request / response message structure for a client / server environment.
NAFEM	North American Association of Food Equipment Manufacturers
NAFEM Gateway	A protocol converter that converts Hobart / Traulsen equipment to the NAFEM protocol using an Ethernet connection.
NDP1	A Gateway device that, when used with compatible Hobart / Traulsen equipment, can make the system NAFEM Data Protocol compliant.
Network	A collection of computers and related devices connected so that communication can occur.
Network Address	In TCP/IP networks, this refers to the IP Address of a node.
Network Administrator	The person designated to maintain the network. This person should have working knowledge of network wiring, requirements, etc. See System Administrator.
Ping	A program used with TCP/IP networks. The Ping program provides a way of testing access to a destination by sending an ICMP echo request, then waiting for a response from the target host.



**Quality Refrigeration**

# **OWNER'S MANUAL ADDENDUM**

**Instructions for re-hinging the doors of all Traulsen  
Refrigerator and Freezer models  
built with an optional rehinging feature**

**- IMPORTANT NOTICE -**

This Manual is prepared for the use of trained Authorized Traulsen Service Agents and should not be used by those not properly qualified. This manual is not intended to be all encompassing, but is written to supplement the formal training, on-the-job experience and other product knowledge acquired by Authorized Traulsen Service Agents. Before proceeding with any work, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed only by a trained Authorized Traulsen Service Agent.

Reproduction or other use of this Manual, without the express written consent of Traulsen, is prohibited.

# I. REHINGING THE DOORS - REMOVING THE HARDWARE

**WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE PROCEEDING WITH REHINGING ANY DOOR(S).**

## I. a - REMOVING THE DOOR(S):

To remove any solid door, begin by removing the plug at the bottom of the top hinge. Inside the hinge there is a small screw which secures the door in place. Remove this with a flat head screwdriver and the door can then be lifted off the hinge (see figure 1).

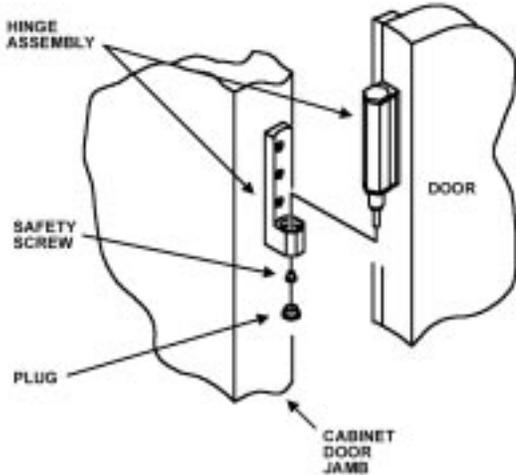


Fig. 1

## I. b - REMOVING THE DOOR HINGES:

After removing the door, it is now necessary to remove the hinge assembly and hardware from the door itself.

To remove the door portion of the hinge from the door, lift off the hinge cover and then remove the three Phillips head screws which secure the hinge in place on the door (see figure 2).

Next, the hinges must be reinstalled in an inverted position. Rotate the hinge assembly 180 degrees, and install these back into the original location. Secure with the same three Phillips head screws which were removed originally.

Set the door(s) with hinges set in the new position aside for later re-assembly.

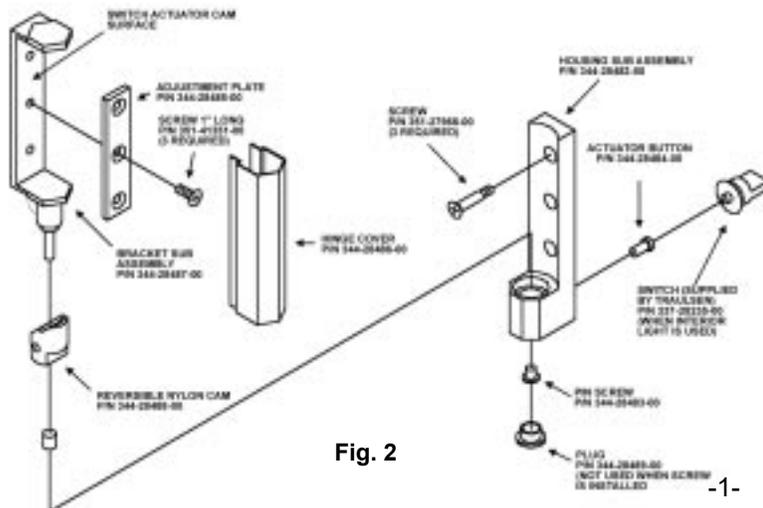


Fig. 2

## I. c - REMOVING THE HINGE BODY FROM THE CABINET:

It is now necessary to remove the hinge hardware from the cabinet itself. To remove the cabinet portion of the hinge, remove the three Phillips head screws which hold it in place. Set these components aside for later reassembly (see figure 2).

**NOTE: All solid door units include a microswitch for controlling the interior lighting in the top hinge(s). Special care should be taken to not damage the wiring for this during the hinge removal process.**

## I. d - REMOVING THE LOCK KEEPER:

The lock keeper must be removed in order to allow for the doors to be re-hinged.

Begin by removing the two (2) Phillips head screws which secure the lock keeper actuator to the lock keeper bracket.

Next remove the lock keeper bracket by removing the two (2) flat head screws which secure it in place.

Set these components aside for later reassembly.

## I. e - REMOVING THE FINISHING SCREWS:

The locations for the hinges and lock keepers to be re-mounted are concealed behind the flat head type finishing screws with washers, which are used to protect these when not in use.

Remove all screws and washers, setting them aside for later re-assembly.

## II. REHINGING THE DOORS - REASSEMBLY

**WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE PROCEEDING WITH REHINGING ANY DOOR(S).**

### II. a - REPLACING THE HINGE BODY:

The hinge body hardware must now be re-installed on the cabinet in their new locations (i.e. on the side adjacent to their former location). To install the cabinet portion of the hinge, set the hinge body into place, and secure in place with the three Phillips head screws which were removed previously. Rotate the hinge cam 180 degrees by using a flat head screwdriver.

**NOTE:** A redundant light switch is included as part of the re-hinging feature, on the side not used as shipped. Special care must be taken to insure that the microswitch for controlling the interior lighting in the top hinge(s) on the new hinged side is correctly placed.

### II. b - REPLACING THE LOCK KEEPER:

Invert the lock keeper bracket 180 degrees and set it in place adjacent to its original position. Next, secure it in place using the two (2) flat heads screws which were removed previously.

Next, invert the lock keeper actuator 180 degrees and set it in place above the newly installed bracket. Secure it in place using the two (2) Phillips head screws removed previously.

### II. c - INSTALLING THE DOOR(S):

Rotate the door(s) 180 degrees from its original position. The upper half length door will now be placed on the bottom, and the lower half length door will now be placed on the top. Set each in place, guiding the door section of the hinge into the correct position of the cabinet hinge section cam.

Re-install the small screws, which were removed previously, in the bottom of the door hinges to secure the door(s) in place, using a flat head screwdriver.

Replace the hinge covers by pressing these into position on each door hinge.

### II. d - REPLACING THE FINISHING SCREWS:

The previous locations where the hinges and lock keepers were mounted need to be concealed using the flat head type finishing screws and washers, which were removed previously. Replace all screws and washers in these now vacant locations.

### II. e - ACTIVATING THE REDUNDANT LIGHT SWITCH:

As shipped from the factory, the redundant light switch included as part of the re-hinging feature is not wired to the power supply/wiring harness of the cabinet. To activate the light switch included in the new top hinge locations follow this procedure:

### II. e - ACTIVATING THE REDUNDANT LIGHT SWITCH (cont'd):

**STEP 1 -** At front of unit, remove two (2) slot head thumbscrews from bottom corners of louver assembly. Set thumbscrews aside.

**STEP 2 -** Swing louver assembly up and away from front of unit until it stops.

**STEP 3 -** Remove two (2) Slot head thumbscrews from top of louver assembly. Set thumbscrews and louver assembly aside.

**STEP 4 -** At the top of the junction box, remove three (3) Phillips head screws. Set screws aside.

**STEP 5 -** Locate one (1) Phillips head screw at bottom of junction box, and remove. Set screw aside.

**STEP 6 -** Carefully slide junction box away from front of unit until all wiring and connections to the controller are exposed (see figure 3).

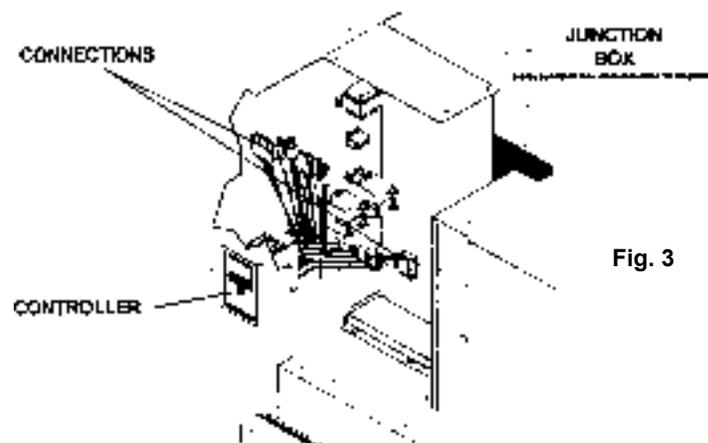


Fig. 3

**STEP 7 -** Disconnect the existing light switch connection from the harness.

**STEP 8 -** The redundant light switch harness is located in the junction box unconnected. Connect this in place of the light switch connector removed in STEP 9.

**STEP 9 -** Reverse STEPS 4 thru 6 to reinstall the junction box cover.

**STEP 10 -** Reverse steps 1 thru 3 in order to return the louver assembly to its proper position.

**STEP 11 -** Return power to the unit and test the new light switch location by opening the doors. If the interior lighting is activated whenever the door is opened the switch is correctly installed.

**HOURS OF OPERATION:**

Monday thru Friday 7:30 am - 4:30 pm CST



**Traulsen**

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Website: [www.traulsen.com](http://www.traulsen.com)

Quality Refrigeration

# 7. MICROPROCESSOR CONTROL (cont'd)

## 7G - SERVICE PARAMETERS-MENU SYSTEM:

DISPLAY SYMBOL	DISPLAY DESCRIPTION
	Plus (+) /Next Key
	Keypad Unlock
	SET/Settings
	Enter Key
	Set Point
	Plus (+) /Next Key
	Set Point Differential
	Modify Key

Listed below are the available parameters in the order they appear, use the **Plus Key** on the controller to sequence through menu system. The **Keypad must be Unlocked** to access the menu system.

- Follow the instructions to enter the technician password (see page 9).
- Use the **Plus Key** to move to the **Settings** submenu.
- Press the **Enter Key** to enter the **Settings** submenu.
- The first parameter displayed will be the **Set Point** parameter is displayed.
- Press the **Enter Key** to display the value of the **Set Point**.
- Use the **Plus Key** to move to the next parameter (**Set Point Differential**).
- Press the **Enter Key** to display the value of the **Set Point Differential**.
- Press the **Modify Key** to change a setting. The value will flash, indicating it is being modified
- Use the **Plus Key** to move through the settings parameters.

DISPLAY SYMBOL	DISPLAY DESCRIPTION
	Set Point
	Set Point Differential
	Aux Device Set Point
	Aux Device Set Point Differential
	Cabinet Fan Door Action
	Defrost Set Point
	Defrost Mode
	Defrost Interval
	Defrost Time1
	Defrost Time2
	Defrost Time3
	Defrost Time4
	Defrost Time5
	Defrost Time6
	Door Heater Mode
	Door Heater Delay
	Serial Number
	Software Version
	Temp Units
	Time Zone
	Daylight Savings Flag

The following parameters are available:

- o Cabinet Set Point
- o Set Point Differential
- o Aux Device Set Point
- o Aux Device Set Point Differential
- o Cabinet Fan Door Action
- o Defrost Set Point
- o Defrost Mode
- o Defrost Interval
- o Defrost Time1
- o Defrost Time2
- o Defrost Time3
- o Defrost Time4
- o Defrost Time5
- o Defrost Time6
- o Door Heater Mode
- o Door Heater Delay
- o Serial Number
- o Software Version
- o Temp Units
- o Time Zone
- o Daylight Savings Flag

In General:

- Use the **Plus Key** and the **Minus Key** to move through the Menu System.
- Press the **Enter Key** to display the value of the selected parameter.
- Press the **Modify Key** to change a setting. The value will flash, indicating it is being modified
- Once the value is flashing, use the **Plus Key** and the **Minus Key** to change the setting.
- When the display shows the desired setting, press the **Enter Key** to accept the value.
- Press the **Esc Key** to abort an edit operation.

DISPLAY SYMBOL	DISPLAY DESCRIPTION
	Plus (+) /Next Key
	Minus (-) /Previous Key
	Enter Key
	Modify Key
	Esc Key



# SERVICE MANUAL



**R&A HT132W MODEL SHOWN**

## **TRAULSEN R/A SERIES REFRIGERATOR**

**R&A HT132W Model Series**

**R&A HT232W Model Series**

**R&A HT332W Model Series**

This Manual is prepared for the use of trained Traulsen Service Technicians and should not be used by those not properly qualified.

This manual is not intended to be all encompassing. If you have not attended a Traulsen Service School for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Traulsen Service Technician.

The reproduction, transfer, sale or other use of this Manual, without the express written consent of Traulsen, is prohibited.

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# GENERAL

## INTRODUCTION

### General

All R/A series refrigerators include a wide range of one, two, & three section reach in refrigerators. All models are capable of 35°F in up to 90°F ambient. The cabinets are equipped with Anti-condensate door perimeter heaters.

These units aid in preserving food quality, texture and nutritional value.

All of the information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing.

## LOCATION

Refer to the Installation Instructions for specific location requirements.

## OPERATION

Refer to the Operation Manual for specific operating instructions.

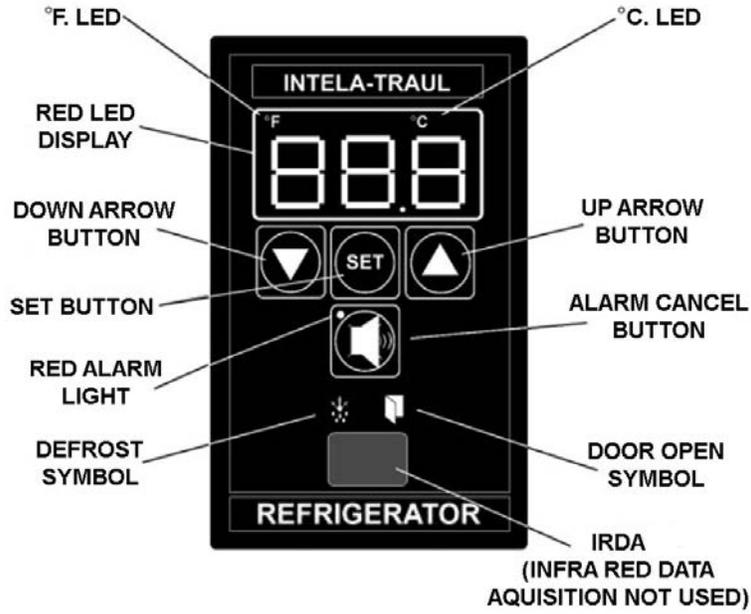
## CLEANING

Refer to the Operation Manual for specific cleaning instructions. The condenser coil must be cleaned every six months. This can be done with a vacuum cleaner using a fin comb or condenser coil brush.

## TOOLS

- Standard set of hand tools
- Clamp meter Part No. 00-541069 Grainger No. 1ND81 or equivalent
- Grounding kit - Static Control Kit Grainger No. 4KK44
- Micro amp meter
- VOM with AC current tester (sensitivity of at least 20,000 ohms per volt)
- Refrigeration tool kit Part No. 00-913093-15
- Digital thermometer with quad inputs Model DT304 Part No. 00-913093-12
- Inficon D-Tek Select refrigerant leak detector
- Part No. 00-913093-2
- Vacuum Cleaner - Shop Vac
- Fin comb Grainger Part No. 2YJ78 or equivalent
- Condenser coil brush Grainger Part No. 3HHE8 or equivalent

**CONTROL PANEL**

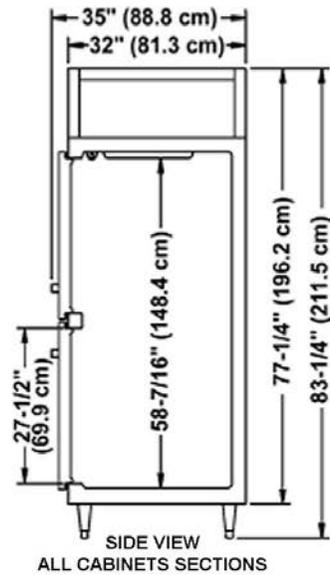
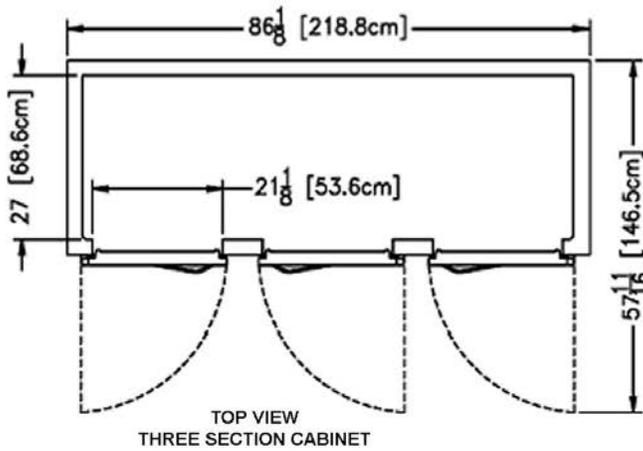
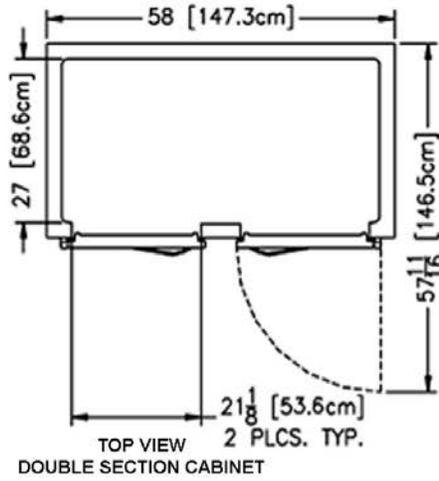
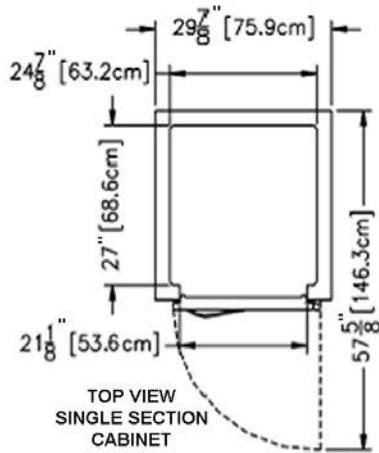
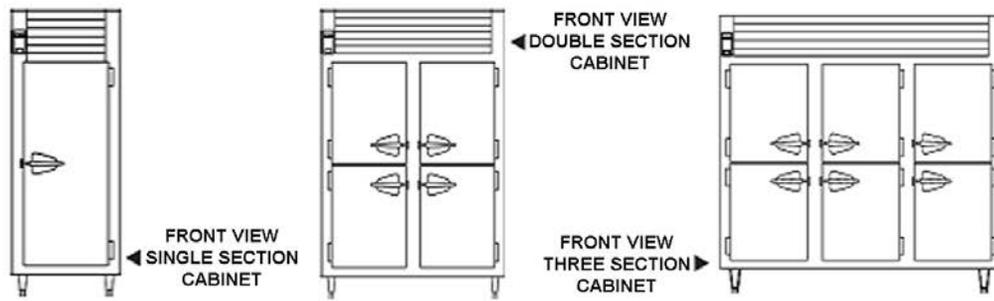


NOTES: IRDA NOT INCLUDED ON EQUIPMENT  
 MANUFACTURED WITH THE MIT II CONTROL VERSION. 22412

**SPECIFICATIONS**

DIMENSIONS	1 Section Cabinet	2 Section Cabinet	3 Section Cabinet
Height- overall on legs	83-1/4" (211.5cm)	83- 1/4" (211.5cm)	83- 1/4" (211.5cm)
Width	29- 7/8" (75.9cm)	58" (147.3cm)	86- 1/8" (218.8cm)
Depth	35" (88.9cm)	35" (88.9cm)	35" (88.9cm)
Net Capacity cu. ft.	24.2	51.6	79.0

R&A SERIES REFRIGERATOR - GENERAL



22413

R&A SERIES REFRIGERATOR - GENERAL

<b>DATA</b>	<b>1 Section Cabinet</b>	<b>2 Section Cabinet</b>	<b>3 Section Cabinet</b>
Voltage	115/60/1	115/60/1	115/60/1
Amps Full Load	7.0	8.2	11.8

<b>OPERATING DATA</b>	<b>1 Section Cabinet</b>	<b>2 Section Cabinet</b>	<b>3 Section Cabinet</b>
Refrigerant Type	R-134A	R-134A	R-134A
High Pressure (psi) 90°F Operating Temperature	147	133	n/a
Low Pressure (psi) 90°F Operating Temperature	14	12	n/a
BTU/HR (HP)	2240 @ 20°F Evaporator Temp. & 90°F Ambient (1/3HP)	4610 @ 20°F Evaporator Temp. & 90°F Ambient (5/8HP)	4900 @ 20°F Evaporator Temp. & 90°F Ambient (3/4HP)

## CONTROL CALIBRATION

**NOTICE** Certain components in this system are subject to damage by electrostatic discharge during field repairs. A field service grounding kit is available to prevent damage. The field service grounding kit must be used anytime the control board is handled.

1. Verify that the cabinet air sensor is functioning properly.
2. Place a thermocouple of a temperature tester in the center of incoming air slot of the cabinet.
  - A. Route thermocouple through hinge side of door to the outside of the cabinet and close the door(s).
3. Set the control temperature to 38°F.
4. Allow the cabinet temperature to stabilize (minimum 3 cycles).
5. Note temperature reading on temperature tester and control display at the exact time the refrigeration system turns off.
6. If the temperature difference between the two readings is greater than  $\pm 2^{\circ}\text{F}$  or  $\pm 1^{\circ}\text{C}$ , adjust if.
  - A. If temperature test shows a temperature higher than control, increase.
  - B. If temperature test shows a temperature lower than control, decrease.
  - C. If temperature difference is greater than the range of the control, replace controller (range  $\pm 50^{\circ}\text{F}$ . or  $\pm 10^{\circ}\text{C}$ .).
7. Check for proper operation.
8. Remove temperature tester thermocouple from the cabinet.

## CONTROL PARAMETERS

**NOTE:** Not all control parameters can be adjusted at the customer level of access. To adjust parameters not at the customer level it will be necessary to access the engineering level.

**NOTE:** If 30 seconds elapse between keypad presses, the controller will revert to a cabinet temperature display (normal operation). If the wrong security code is entered, the controller will revert to a cabinet temperature display (normal operation). To save settings & exit customer access mode, press the alarm cancel keypad or not pressing any keypads for 30 seconds.

### To Access Customer Level

1. Use security code 0A1 by.
2. Pressing the Set keypad until CUS is displayed.
3. Press the Set keypad until left zero is flashing with three zeros displayed.
4. Press the Set keypad until center zero is flashing with three zeros displayed.
5. Press the Down Arrow until A is shown in center display.
6. Press Set keypad until right zero is flashing with 0A0 displayed.
7. Press the Up Arrow until 1 is flashing in right display.
8. Press the Set keypad. Display should read SP (Thermostat Set Point) indicating controller is in Customer Access Mode.

### To Access Engineering Level

1. Press the Set keypad until CUS is displayed.
2. Press the DOWN ARROW keypad until ENG is displayed.
3. Press the Set keypad until 000 is displayed with the left digit flashing.
4. Press the DOWN ARROW keypad until left digit displays 9.
5. Press the Set keypad until the center digit flashes.
6. Press the DOWN ARROW keypad until center digit displays 9.
7. Press the Set keypad until the right digit flashes.
8. Press the DOWN ARROW keypad until the right digit displays E.
9. Press SET keypad then the DOWN ARROW keypad until FOC is displayed.

**NOTE:** Hex File AR1 (Off cycle defrost) and AR3 (electric defrost).

10. Use the DOWN ARROW keypad to scroll thru control parameters.

**R&A SERIES REFRIGERATOR - SERVICE PROCEDURES AND ADJUSTMENTS**

PARAMETER DISPLAYED	DESCRIPTION / ACCESS LEVEL	RANGE	DEFAULT PARAMETER SETTINGS (REFRIGERATOR MODEL SERIES)	
			Refrigerator Manufactured After Jan 1 <sup>st</sup> 2010 Model R/A1, R/A2, & R/A3 Hex File AR3	Refrigerator Manufactured Before Jan 1 <sup>st</sup> 2010 Model R/A1, R/A2 & R/A3 Hex File AR1
ADR	Device address / Eng. Level	0 to 31	2	2
BAU	Comm. baud rate - Kb / Eng. level	Indicates control communication speed (baud rate in Kilobits)	9.6	9.6
NAF	NAFEM Communications enable / Eng. level	OFF / ON	ON	ON
SPH software ver. C28	Temperature set point high / Cuc. level	SHH to SHL	38 °F	38 °F
SPL software ver. C28	Temperature set point low / Cuc. level	SLH to SLL	34 °F	34 °F
SP software ver. C32 & above	Set point cut out temperature		35 °F	35 °F
SPD software ver. C32 & above	Set point differential	SP TO SPD	2.0 °F	2.0 °F
SHL software ver. C28	Set point high-low / Eng. level	-40°F. up to current setting for SHH	36 °F	36 °F
SHH software ver. C28	Set point high-high / Eng. level	From current setting for SHL up to 266°F.	40 °F	40 °F
SLL software ver. C28	Set point low-low/ Eng. level	-40°F. up to current setting for SLH	32 °F	32 °F
SLH software ver. C28	Set point low-high/ Eng. level	From current setting for SLL up to 266°F.	35.5 °F	35.5 °F
RO	Room ambient offset / Cuc. level	±3°F. in 1/2°F. increments	0 °F	0 °F
HI	Upper temperature limit / Eng. level	-40 °F. to 266°F.	41 °F	41 °F
LO	Lower temperature limit / Eng. level	-40 °F. to 266°F.	23 °F	30 °F
SCL	Temperature scale °F or °C / Cuc. level	°F. or °C.	°F	°F

**R&A SERIES REFRIGERATOR - SERVICE PROCEDURES AND ADJUSTMENTS**

PARAMETER DISPLAYED	DESCRIPTION / ACCESS LEVEL	RANGE	DEFAULT PARAMETER SETTINGS (REFRIGERATOR MODEL SERIES)	
			Refrigerator Manufactured After Jan 1 <sup>st</sup> 2010 Model R/A1, R/A2, & R/A3 Hex File AR3	Refrigerator Manufactured Before Jan 1 <sup>st</sup> 2010 Model R/A1, R/A2 & R/A3 Hex File AR1
LAD	Low temperature alarm delay / Eng. level	n/a	15	15
AC	Anti-cycling- minute / Eng. level	1-10 min. in 1 min. increments	3	3
DEF	Defrost type- ele., gas, none, off cycle / Eng. level	ELE, GAS, NONE or OFF	ELE	OFF
IBD	Intervals between defrosts- hours / Eng. level	1-9 hrs. in 1 hr. increments	8.0	1.0
DDC	Maximum defrost duration- minute / Eng. level	0-30 min. in 5 min. increments	25	20
CDE	Coil temperature at end of defrost cycle / Eng. level	40 °F. to 80 °F. in 5 °F. increments	40 °F	40 °F
DDE	Drip time at end of defrost cycle- minute / Eng. level	1-5 min. in 1 min. increments	2	2
BDD	Blower delay at drip time- minute / Eng. level	0-5 min. in 1 min. increments	2	5
BSD	BSP after defrost end / Eng. level	30 °F. to 40 °F. in 1 °F. increments	30 °F	30 °F
ODD	Display hold after defrost- minute / Eng. level	0-30 min. in 5 min. increments	10	10
SD	Start-Stop defrost / Cus. level	YES / NO	Start a new defrost cycle at any time or stops a current defrost cycle.	
FAN software ver. C28	Evaporator fan On/Off when door open	ON / OFF	ON	ON
CFA	Clogged filter alarm On-Off / n/a	ON / OFF	ON	ON
CCR	Clogged filter compressor run time / n/a	1-20 min. in 1 min. increments	20	20
CDL	Clogged filter alarm temperature / n/a	160 °F. to 220 °F. in 5 °F. increments	140 °F.	140 °F.

**R&A SERIES REFRIGERATOR - SERVICE PROCEDURES AND ADJUSTMENTS**

PARAMETER DISPLAYED	DESCRIPTION / ACCESS LEVEL	RANGE	DEFAULT PARAMETER SETTINGS (REFRIGERATOR MODEL SERIES)	
			Refrigerator Manufactured After Jan 1 <sup>st</sup> 2010 Model R/A1, R/A2, & R/A3 Hex File AR3	Refrigerator Manufactured Before Jan 1 <sup>st</sup> 2010 Model R/A1, R/A2 & R/A3 Hex File AR1
DAD	Door display alarm delay / Eng. level	1-10 min. in 1 min. increments	15	15
APD	Alarm pause delay / Eng. level	2-10 sec. in 2 sec. increments	2	2
ATD	Alarm temperature delay / Eng. level	5 to 60°F. in 5 °F. increments	10	10
AAS	Audible alarm style / Cus. level	OFF, Bst, Cnt	OFF	OFF
CL	Set the clock time-h/m/s / Cus. level	00:00 to 23:59 Setting for 12hr. or 24 hr. time	Set the clock for standard time or military time.	
DAY	Set the clock date-y/m/d / Cus. level	year/month/day	Set the year, month, day of the month and day of the week.	
DS	Daylight Savings / Cus. level	ON / OFF	ON	ON
DL1	Defrost lockout 1 / Cus. level	2:00 to 8:00 in. 30 min. increments & OFF	OFF	OFF
DL2	Defrost lockout 2 / Cus. level	8:00 to 14:00 in. 30 min. increments & OFF	OFF	OFF
DL4	Defrost lockout 4 / Cus. level	2:00 to 20:00 in. 30 min. increments & OFF	OFF	OFF
DCF software ver. C28	Dewpoint correction factor / Cus. level	0 to 100	100	100
CON	Compressor default On time / Eng. level	5-30 min. in 1 min. increments	5	5
COF	Compressor Off time / Eng. level	5-30 min. in 1 min. increments	5	5
EL	Evaporator coil temperature / Cus. level	n/a	Displays evaporator coil temperature in real time every time an arrow keypad is pressed.	
LL	Liquid line temperature / Cus. level	n/a	Displays liquid line temperature in real time every time an arrow keypad is pressed.	
DL software ver. C28	Discharge line temperature / Cus. level	n/a	Displays discharge line temperature in real time every time an arrow keypad is pressed.	

PARAMETER DISPLAYED	DESCRIPTION / ACCESS LEVEL	RANGE	DEFAULT PARAMETER SETTINGS (REFRIGERATOR MODEL SERIES)	
			Refrigerator Manufactured After Jan 1 <sup>st</sup> 2010 Model R/A1, R/A2, & R/A3 Hex File AR3	Refrigerator Manufactured Before Jan 1 <sup>st</sup> 2010 Model R/A1, R/A2 & R/A3 Hex File AR1
RCO	Cycle compressor relay / Eng. level	n/a	Turns On/Off the compressor relay for 10 seconds or until an arrow keypad is pressed.	
RdF	Cycle defrost relay / Eng. level	n/a	Turns On/Off the defrost relay for 10 seconds or until an arrow keypad is pressed.	
RFA	Cycle fan relay / Eng. level	n/a	Turns On/Off the blower relay for 10 seconds or until an arrow keypad is pressed.	
RDH	Cycle door heater relay / Eng. level	n/a	Turns On/Off the door heater for 10 seconds or until an arrow keypad is pressed.	
CEP	Clear EPROM & load defaults / Eng. level	n/a	Clear all control memories and reloads the factory default parameters.	
Ref	Software version, revision, step / n/a level	n/a	Same as hex file	

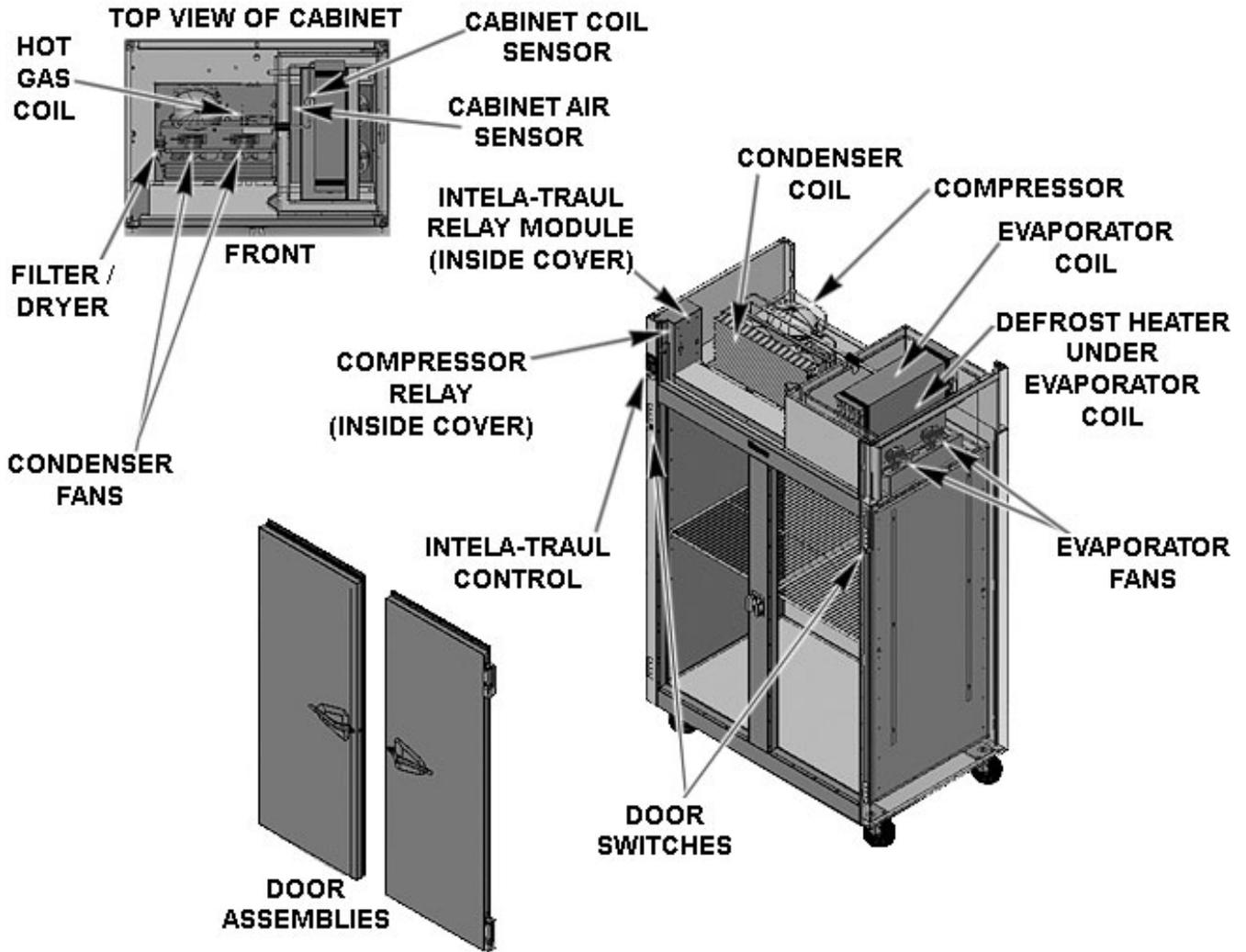
11. To exit, press the alarm cancel keypad or not pressing any keypads for 30 seconds.

# ELECTRICAL OPERATION

## COMPONENT FUNCTION

<b>Intela-Traul Control</b> . . . . .	Performs the following functions: A. Displays all data for the current software revision & mode of operation. B. Cycles refrigeration system to maintain cabinet temperatures. C. Cycles defrost relay to defrost evaporator coil. D. Monitors power losses as well as component malfunctions. E. Monitors door position.
<b>Compressor</b> . . . . .	Pumps refrigerant through refrigeration system lines and components.
<b>Start Capacitor</b> . . . . .	Wired in series with the start windings to help start compressor motor.
<b>Run Capacitor</b> . . . . .	Continually in circuit to help compressor motor during operation.
<b>Compressor Relay</b> . . . . .	Senses current of run winding of compressor motor. Normally open contacts close when the run winding draws a high amperage at start and brings the start capacitor and start windings into the circuit. As the motor reaches operating speed (less amperage through run winding), the normally open contacts open and removes the start capacitor and start windings from the circuit.
<b>Evaporator Fan</b> . . . . .	Draws air from the cabinet and moves the air through the evaporator coil back into cabinet.
<b>Condenser Fan</b> . . . . .	Draws air across condenser coil to aid in removing heat from the refrigerant and move air across compressor to aid in cooling the compressor.
<b>Defrost Heater</b> . . . . .	Defrosts evaporator coil and prevents water droplets from evaporator coil to freeze before they can drain to the condensate pan. Operates only during defrost cycle.
<b>Cabinet Air Sensor</b> . . . . .	Monitors air temperature inside cabinet.
<b>Cabinet Coil Sensor</b> . . . . .	Monitors the evaporator coil while the cabinet is powered.
<b>Door Switch</b> . . . . .	Monitors door for open or closed position. Evaporator fans stop when door is open.
<b>Solenoid Valve</b> . . . . .	Normally closed when energized, allows refrigerant to flow from receiver to evaporator coil. Remote unit only.
<b>Door Perimeter Heater</b> . . . . .	Prevents condensate from forming on door frame.
<b>Intela-Traul Relay Module</b> . . .	Controls power to the following components: A. Evaporator fan(s). B. Door heater. C. Defrost heater. D. Compressor relay. E. Solenoid valve (remote unit only).
<b>Main Switch</b> . . . . .	Controls power to intela-traul relay box, compressor relay, door switch, & auxiliary components. Removes power from listed components.
<b>Heated Glass Doors</b> . . . . .	Auxiliary component, prevents condensate from forming on glass door.
<b>Condensate Evaporator</b> . . . . .	Auxiliary component, when energized dissipates condensate in the evaporator pan.

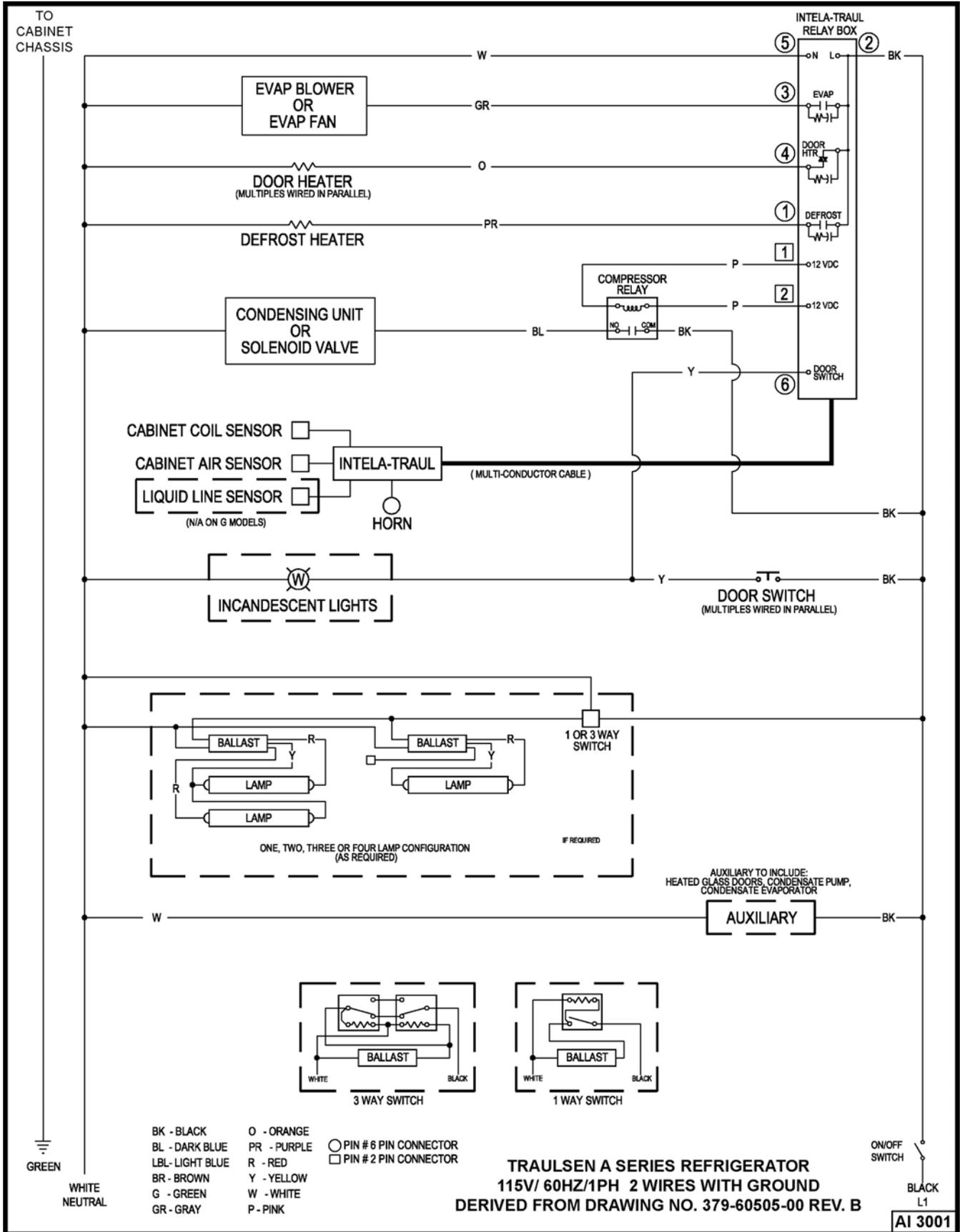
**COMPONENT LOCATION**



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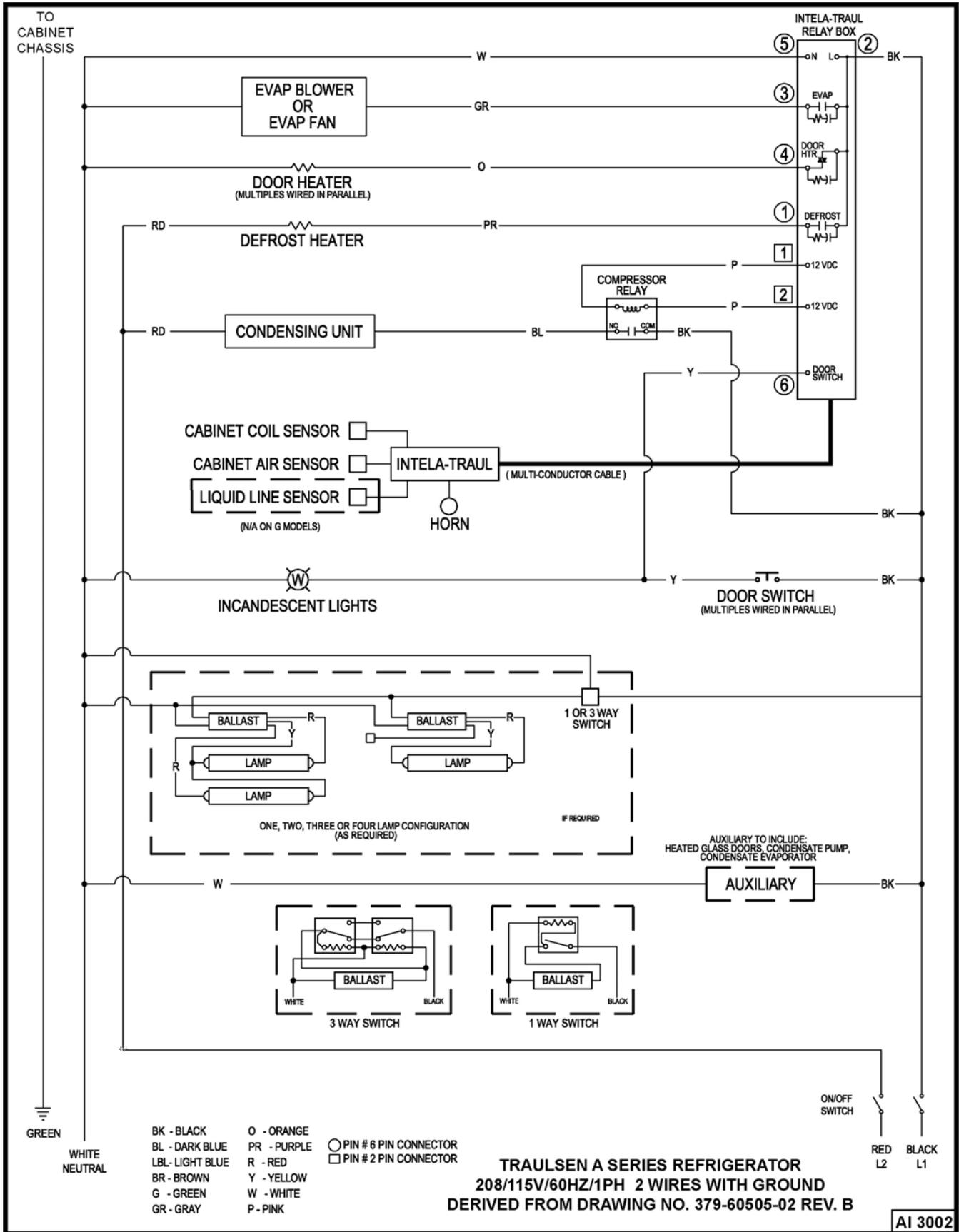
**WIRING DIAGRAMS**

115V/60HZ/1PH



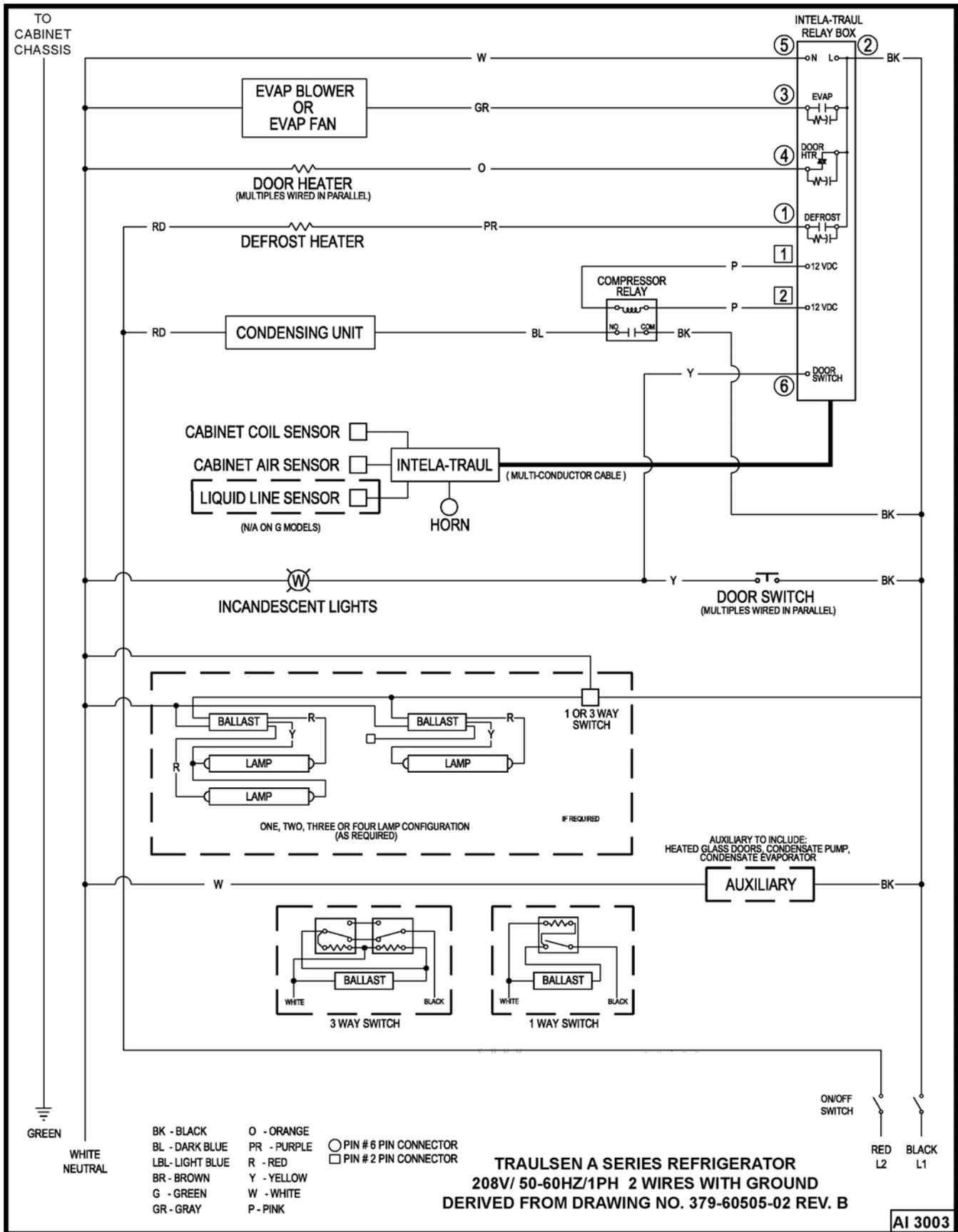
R&A SERIES REFRIGERATOR - ELECTRICAL OPERATION

208/115V/50-60HZ/1PH



R&A SERIES REFRIGERATOR - ELECTRICAL OPERATION

220V/50-60HZ/1PH



# TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES
Nothing runs, blank control.	<ol style="list-style-type: none"> <li>1. Main circuit breaker open.</li> <li>2. Main on/off switch off.</li> <li>3. Power cord unplugged.</li> </ol>
Compressor will not run, no current draw.	<ol style="list-style-type: none"> <li>1. Cabinet temperature satisfied.</li> <li>2. Door open or malfunction door switch, with display on control.</li> <li>3. Incorrect wiring.</li> <li>4. Cabinet air sensor malfunction.</li> <li>5. Start component malfunction.</li> <li>6. Compressor motor windings open.</li> <li>7. Control malfunction.</li> <li>8. Compressor relay malfunction.</li> <li>9. Relay module malfunction.</li> </ol>
Compressor will not run, current draw and trips breaker.	<ol style="list-style-type: none"> <li>1. Start component malfunction.</li> <li>2. Compressor motor windings shorted.</li> <li>3. Locked rotor.</li> </ol>
Defrost time too long.	<ol style="list-style-type: none"> <li>1. Evaporator coil sensor malfunction.</li> <li>2. Incorrect wiring.</li> <li>3. Control malfunction.</li> <li>4. Defrost heater malfunction.</li> </ol>
Compressor short cycles.	<ol style="list-style-type: none"> <li>1. Improper air flow over evaporator coil.</li> <li>2. Expansion valve malfunction.</li> <li>3. Low ambient conditions.</li> <li>4. Evaporator fan(s) malfunction.</li> <li>5. Cabinet air sensor malfunction.</li> <li>6. Evaporator coil sensor malfunction.</li> <li>7. Control malfunction.</li> </ol>
Compressor run time lengthy.	<ol style="list-style-type: none"> <li>1. Excessive door openings.</li> <li>2. Excessive product load.</li> <li>3. High ambient conditions.</li> <li>4. Door gasket(s) need replaced.</li> <li>5. Improper air flow over condenser coil.</li> <li>6. Relay module malfunction.</li> <li>7. Condenser fan(s) malfunction.</li> <li>8. Cabinet air sensor malfunction.</li> <li>9. Cabinet coil sensor malfunction.</li> <li>10. Control malfunction.</li> <li>11. Partial loss of refrigerant.</li> <li>12. Contaminates in refrigeration system.</li> </ol>
Continuous compressor operation.	<ol style="list-style-type: none"> <li>1. Loss of refrigerant.</li> <li>2. Excessive door openings.</li> <li>3. Cabinet air sensor malfunction.</li> <li>4. Control malfunction.</li> </ol>
Low suction pressure.	<ol style="list-style-type: none"> <li>1. Restriction in refrigeration system.</li> <li>2. Loss of refrigerant.</li> <li>3. Expansion valve blocked.</li> </ol>
High head pressure.	<ol style="list-style-type: none"> <li>1. Improper air flow across condenser.</li> <li>2. Extreme ambient conditions.</li> <li>3. Overcharge of refrigerant.</li> <li>4. Air in refrigerant system.</li> <li>5. Condenser fan(s) malfunction.</li> </ol>

R&A SERIES REFRIGERATOR - TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES
Iced Evaporator coil.	<ol style="list-style-type: none"> <li>1. Excessive door openings.</li> <li>2. Evaporator fan(s) malfunction.</li> <li>3. Excessive product load.</li> <li>4. Verify defrost control parameter settings.</li> <li>5. Evaporator coil sensor malfunction.</li> <li>6. Compressor relay malfunction.</li> <li>7. Control relay module.</li> <li>8. Cabinet air sensor malfunction.</li> <li>9. Control malfunction.</li> <li>10. Refrigerant system malfunction.</li> </ol>
Will not defrost.	<ol style="list-style-type: none"> <li>1. Defrost heater(s) malfunction.</li> <li>2. Incorrect wiring.</li> <li>3. Compressor relay malfunction.</li> <li>4. Evaporator coil sensor malfunction.</li> <li>5. Control malfunction.</li> </ol>
Control display blank.	<ol style="list-style-type: none"> <li>1. Main power supply.</li> <li>2. Relay module malfunction.</li> <li>3. On/off switch malfunction.</li> <li>4. Control malfunction.</li> </ol>
Control displays <b>HI Cab</b> . Indicates a high cabinet temperature.	<ol style="list-style-type: none"> <li>1. Excessive door openings.</li> <li>2. Excessive product load.</li> <li>3. Evaporator coil iced over.</li> <li>4. Loss of refrigerant.</li> <li>5. Cabinet air sensor malfunction.</li> </ol>
Control displays <b>Lo Cab</b> . Indicates a low cabinet temperature.	<ol style="list-style-type: none"> <li>1. Cabinet temperature set point too low.</li> <li>2. No product load in cabinet.</li> <li>3. Compressor relay malfunction.</li> <li>4. Cabinet air sensor malfunction.</li> </ol>
Control displays <b>dor Opn</b> . Indicates door(s) open.	<ol style="list-style-type: none"> <li>1. Excessive door openings.</li> <li>2. Relay module malfunction.</li> <li>3. Door switch malfunction.</li> <li>4. Incorrect wiring.</li> </ol>
Control display <b>ELE LOS</b> . Indicates a power loss.	<ol style="list-style-type: none"> <li>1. Main circuit breaker open.</li> <li>2. Intermittent main power loss.</li> <li>3. Power cord unplugged.</li> <li>4. Incorrect wiring.</li> </ol>
Control display <b>CAL Ser</b> . Indicates service required.	<ol style="list-style-type: none"> <li>1. Loss of refrigerant.</li> <li>2. Expansion valve malfunction.</li> <li>3. Cabinet air sensor malfunction.</li> <li>4. Cabinet coil sensor malfunction.</li> <li>5. Discharge line sensor malfunction.</li> <li>6. Air, coil, or discharge line sensor(s) incorrect located.</li> </ol>
Control display <b>CIn FIL</b> . Indicates condenser coil needs cleaning.	<ol style="list-style-type: none"> <li>1. Condenser coil dirty.</li> <li>2. Condenser fan(s) malfunction.</li> <li>3. Obstructions restricting condenser coil air flow.</li> <li>4. Facilities ambient temperature too high.</li> <li>5. Obstructions restricting air flow around top &amp; rear of cabinet.</li> </ol>



Quality Refrigeration

# INTELA-TRAUL<sup>®</sup> MASTER SERVICE MANUAL



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***For All Full Size Undercounter, G-Series and  
R&A Series Refrigerator, Freezer, Dual-Temp  
and Hot Food Unit Controllers***

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## **Traulsen**

4401 Blue Mound Road - Fort Worth, Texas 76106

Phone: (800) 825-8220 or (817) 625-9671

Fax-Service (817) 740-6757

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# I. GENERAL INFORMATION

## I. a - HOW TO USE THIS MANUAL:

Traulsen provides this manual as an aid to the service technician in installation, operation, and maintenance of INTELA-TRAUL® Controllers. When used properly, this service manual can help the service technician maintain, troubleshoot and diagnose most of the problems and malfunctions that may occur with the Controllers.

This manual covers the four different types of Controllers (**Full Size Undercounter, G-Series, R&A Series Refrigerator & Freezer, and R&A Series Hot Food**). These vary slightly from one another, all exceptions are noted, and where appropriate separate sections are provided.

While we believe that most aspects of the controllers are covered in this manual, should you encounter a condition not addressed, or require a wiring diagram please contact:

**Traulsen**  
**4401 Blue Mound Road Fort Worth, TX 76106**  
**Attn: Service Department**  
**Phone: (800) 825-8220 or (817) 625-9671**  
**Fax: (817) 740-6757**

All service communication must include:

- Model Number & Serial Number Of Unit
- A detailed explanation of the problem

## I. b - ABOUT INTELA-TRAUL:

The Traulsen INTELA-TRAUL and G-Series microprocessor controls are microprocessor based systems which replace several electromechanical components typically built into refrigeration products, such as: time clocks, thermometers, defrost limit switches and temperature controls, all combined into one solid state modular unit.

These microprocessor controls both monitor a cabinet air sensor and a coil sensor. The INTELA-TRAUL on the R & A Series also includes a discharge line sensor and a relative humidity sensor (H1 versions only). In conjunction with the programmed parameters of the control, and the information received, it cycles the refrigeration system ON and OFF at set temperatures, initiates and/or terminates defrost cycles, and initiates one of several alarm features if a problem is sensed (R & A Series only). R & A Series controls also allow the operator to cycle the door perimeter heaters ON/OFF as needed.

## I. c - OPERATING THE CONTROLLER:

When operating the controller it is important to note that you only have approximately 20-30 seconds between button pushes. If you take longer than 30 seconds, the controller will revert back to displaying the cabinet temperature. If you enter the wrong security code, the controller will revert back to displaying the cabinet temperature. You can exit the parameters at any time by waiting 20-30 seconds for the control to return to normal operation.

## II. BASIC SERVICE PROCEDURES

### II. a - ADJUSTING THE TEMPERATURE:

The Display  
Will Read

- Step 1: Press . Display will read "CUS." 
- Step 2: Press . Display will read "000" with the left digit flashing. 
- Step 3: Press . Display will read "000" with the center digit flashing. 
- Step 4: Press  until the center digit changes to an "A". 
- Step 5: Press . Display will read "0A0" with the right digit flashing. 
- Step 6: Press  until the right digit changes to a "1". 
- Step 7: Press . Display will read "SPH". 
- Step 8: Press  again.
- Step 9: Press  or  to adjust temperature to desired setting.

(NOTE: SPH should be set at 38 to 40°F for refrigerators and 0°F for freezers)

- Step 10: When display reads the desired temperature press . 
- Step 11: Press  until display reads "SPL". 
- Step 12: Press .
- Step 13: Press  or  to adjust temperature to desired setting. 

(NOTE: SPL should be set at 34°F for refrigerators and -4°F for freezers)

- Step 14: Press .
- Step 15: Press  to exit (R & A Series only). On G-Series models the controller will automatically revert back to normal temperature display operation after a delay of approximately 20-30 seconds.

## II. BASIC SERVICE PROCEDURES

### II. b - STARTING A MANUAL DEFROST CYCLE (R & A Series):

The Display  
Will Read

- Step 1: Press . Display will read "CUS."
- Step 2: Press . Display will read "000" with the left digit flashing.
- Step 3: Press . Display will read "000" with the center digit flashing.
- Step 4: Press  until the center digit changes to an "A".
- Step 5: Press . Display will read "0A0" with the right digit flashing.
- Step 6: Press  until the right digit changes to a "1".
- Step 7: Press . Display will read "SPH".
- Step 8: Press  until the control reads "Sd," Start Manual Defrost.
- Step 9: Press . Display will read "n" (NO).
- Step 10: Press  or . Display will read "4" (YES).
- Step 11: Press . Controller will display "SPH" for 30 seconds and then "DEF" will appear.

CUS

000

000

0A0

0A0

0A1

SPH

Sd

n

4

SPH

**NOTE:** The controller will automatically revert back to normal operation after a delay of approximately 20-30 seconds.



#### NOTE:

Traulsen R & A Series refrigerator models also include an off-cycle defrost feature, which occurs once an hour. This is indicated by the control display, is time or temperature terminated, and generally is of 3 - 10 minutes in duration.

DEFROST ICON

## II. BASIC SERVICE PROCEDURES

### II. c - STARTING A MANUAL DEFROST CYCLE (G-Series):

The Display  
Will Read

- |  |   |
|--|---|
| Step 1: Press  . Display will read "CUS."   |  |
| Step 2: Press  . Display will read "000" with the left digit flashing.  |  |
| Step 3: Press  . Display will read "000" with the center digit flashing.  |  |
| Step 4: Press  until the center digit changes to an "A".  |  |
| Step 5: Press  . Display will read "0A0" with the right digit flashing.   |  |
| Step 6: Press  until the right digit changes to an "1".   |  |
| Step 7: Press  . Display will read "SPH".   |  |
| Step 8: Press  until the control reads "Sd," Start Manual Defrost.  |  |
| Step 9: Press  . Display will read "n" (NO).  |  |
| Step 10: Press  or  . Display will read "4" (YES).   |  |
| Step 11: Press  . Display will then read "SPH," Start Manual Defrost.   |  |
| Step 14: Press  or  to scroll to the next parameter, otherwise the controller will automatically revert back to normal operation after a delay of approximately 20-30 seconds. |   |



#### NOTE:

Traulsen G-Series refrigerator models also include an off-cycle defrost feature, which occurs once an hour. This is indicated by the control display, is time terminated, and is generally of 3 - 10 minutes in duration.

The defrost cycle on Traulsen G-Series freezer models can be either time or temperature terminated.

DEFROST ICON

### III. TROUBLESHOOTING

#### III. a - CHECKING FOR DEFECTIVE SENSORS:

The Display  
Will Read

Step 1: Press . Display will read "CUS."



Step 2: Press . Display will read "000" with the left digit flashing.



Step 3: Press . Display will read "000" with the center digit flashing.



Step 4: Press  until the center digit changes to an "A".



Step 5: Press . Display will read "0A0" with the right digit flashing.



Step 6: Press  until the right digit changes to an "1".



Step 7: Press .

Step 8: Press  until display reads "EL". Press .



If the display now reads "-40," check for loose connection on the EVAPORATOR sensor. If the display has a very high reading such as "266," replace the evaporator sensor.

NOTE: Erroneous readings may be the result of a faulty sensing circuit (open or shorted) in the Controller.

Step 9: Press  until the display reads "DL<sup>1</sup>". Press .



In the event that the display now reads "-40," check for a loose connection on the DISCHARGE LINE sensor. If the display has a reading of "220" or higher, check for lack of adequate air-flow through the condenser, a bad condenser motor, or any other condition around the unit which could cause a high temperature, such as a steam table or a crossdraft. Otherwise, proceed with replacing the DISCHARGE LINE sensor.

NOTE: Erroneous readings may be the result of a faulty sensing circuit (open or shorted) in the Controller.

Step 10: Press  until the display reads "AA<sup>2</sup>". Press .



Display should read the approximate ambient air temperature behind the louver panel. If the display reads "111" check for a loose connection on the RH/AMBIENT AIR sensor. If the display reads "32.0" check the sensor for a short circuit.

NOTE: If display reads -40 or 266 the cabinet sensor is defective and requires replacement.

NOTE: Ambient Air Sensor not included on MIT version controllers.

NOTE: Erroneous readings may be the result of a faulty sensing circuit (open or shorted) in the Controller (on H1 control version only).

1= DL is not included on G-Series controllers.

2= AA is not available with MIT version controllers.

### **III. TROUBLESHOOTING**

#### **III. b - CHECKING FOR FAILED RELAYS:**

##### **Checking For A Failed Internal Controller Relay:**

1. Gain access to Controller compressor relay (see REMOVAL INSTRUCTIONS within this service manual for the specific type of controller your are servicing).
2. Locate the connector with the black/blue/purple wires and unplug it. Refer to the schematic on the side of the controller, or refer to the appropriate wiring diagram (to obtain this please contact the factory, referencing the serial number of the unit involved).
3. Using a volt/ohm meter (VOM) with the power OFF, check the resistance across the black to blue wires of the Controller connector. If completed circuit is indicated (with no power to the Controller), the contacts are stuck closed and the Controller should be replaced (on MIT versions either the relay box or one of the other relays within the unit need to be replaced).

##### **Checking For A Failed External "Slave" Relay or Solid State Relay (SSR), p/n 337-60360-01 (MIT II Only):**

1. Gain access to the controller compressor relay (see REMOVAL INSTRUCTIONS within this service manual for the specific type of controller your are servicing).
2. Locate the external "slave" relay and unplug the harness connectors.
3. Using a volt/ohm meter (VOM), check the resistance from the "COM" terminal to the "NO" terminal. If a completed circuit is indicated, the contacts are stuck closed and the slave relay should be replaced.
4. For the SSR, remove the black and blue wires from terminals 3 & 4. Using a volt/ohm meter, and with the power OFF, measure the resistance across the terminals. A completed circuit indicates that the circuit is closed and that the relay should be replaced. A reading of 25 m $\Omega$  to 35 m $\Omega$  is considered normal for an open circuit in the SSR.

##### **Checking For A Failed Door/Light Relay (R & A Series models only):**

1. Gain access to Controller door relay (see REMOVAL INSTRUCTIONS within this service manual for the specific type of controller your are servicing).
2. Remove the wire from the door relay coil.
3. Using a volt/ohm meter (VOM), check across the relay contacts. If an open across the contacts is not indicated, replace the door relay.

**NOTE:** Equipment manufactured with the MIT II controller version do not include a Door/Light relay).

4. Physically check the switch for evidence of water. If switch has water in it, proceed with replacing the switch.

### III. TROUBLESHOOTING

#### III. c - CHECKING FOR OTHER FAILED COMPONENTS:

##### Checking For A Failed Door Switch:

1. Remove the door(s) from the unit involved.
2. Locate the door switch, which is located behind the top door hinge(s).
3. Remove the switch from the cabinet.
4. Using a volt/ohm meter (VOM), check across the switch contacts. "COM" to "NO" should read open. If not, replace the switch.
5. Reinstall the switch and hinge onto the cabinet.

NOTE: If the unit has more than one door, check ALL door switches in the same manner as described in steps 1 thru 5 above.

##### Checking For A Failed Controller Transformer (H1 & MIT I control versions only):

1. Check incoming voltage. Voltage at the unit must be within the ranges shown in the table below.

VOLTAGE		
MIN	MAX	STANDARD
104 VAC	126 VAC	115/60/1
187 VAC	253 VAC	208-230/60/1
10.2 Volts (MIT 12.4)	13.8 Volts (MIT 14.7)	Transformer Output Voltage

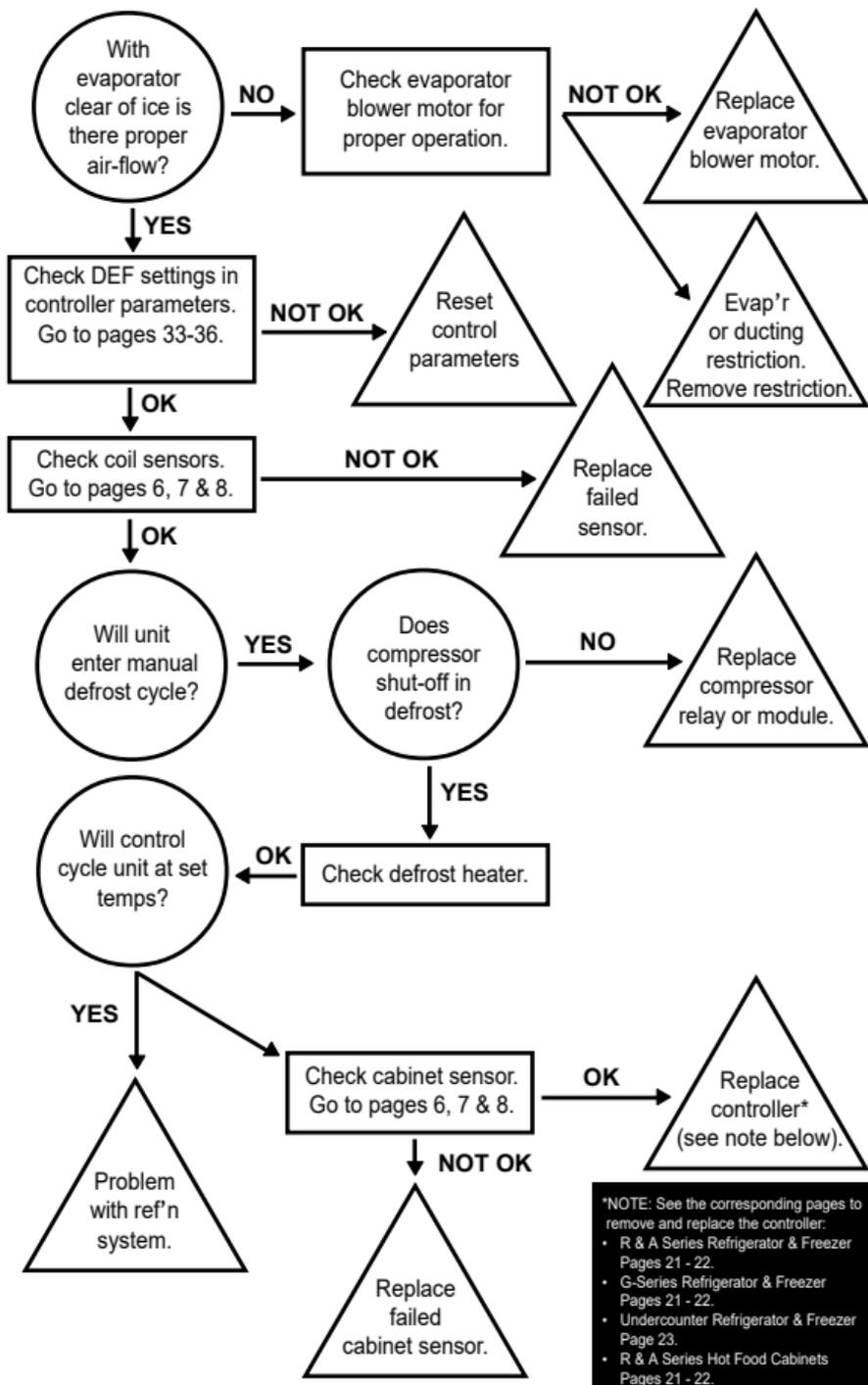
2. If the controller display does not come back on, use a volt/ohm meter (VOM) and check the output voltage of the controller transformer.
3. If the output voltage from the transformer is not within the range shown in the table above, replace the transformer. If the transformer tests OK, replace the controller instead.
4. For equipment manufactured with the MIT II controller version the transformer is mounted inside the relay module. Check between 17 and 8 on 18 pin connector on relay module for 12V DC.

##### Checking Cabinet, Coil or Discharge Line Sensors:

1. Gain access to CABINET, COIL or DISCHARGE LINE sensor and disconnect it.
2. Place tip of sensor probe in a mixture of icewater for several minutes. Allow enough time for sensor probe to acclimate to the icewater.
3. At 32°F, probe resistance should be 32.7K Ohms, +/- 10%. If resistance is not within this range, replace the sensor.

### III. TROUBLESHOOTING

#### III. d - CHECKING FOR ICED EVAPORATOR COIL:



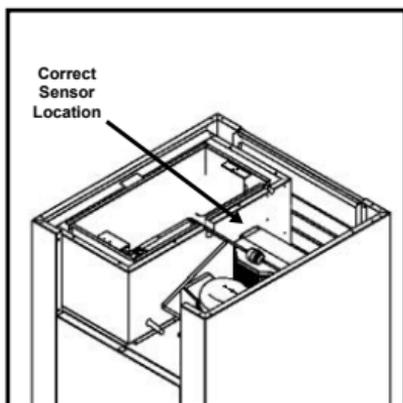
### III. TROUBLESHOOTING

#### III. e - PROPER SENSOR PLACEMENT:

##### Coil Sensor:

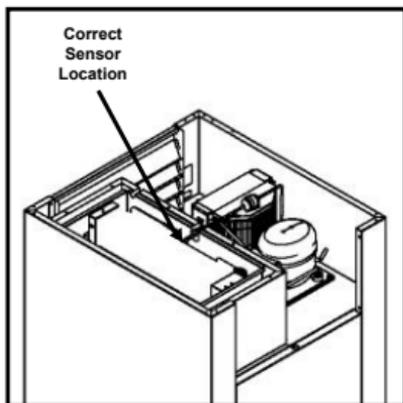
The coil sensor should be inserted into the return air side of the evaporator coil. On freezer models only this sensor should be centered approximately 2" (two inches) from the top (horizontally through coil - centered in coil).

On refrigerator models this sensor should be mounted on top of the coil.



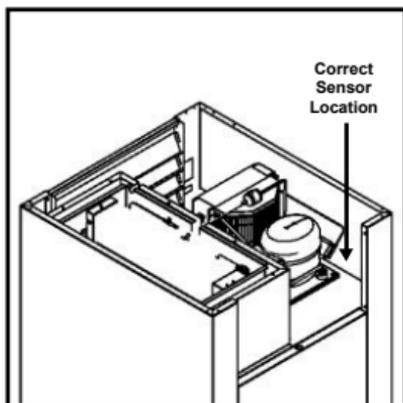
##### Cabinet Air Sensor:

The cabinet air sensor should be mounted inside the evaporator housing (hump) on the return air side of the evaporator coil.



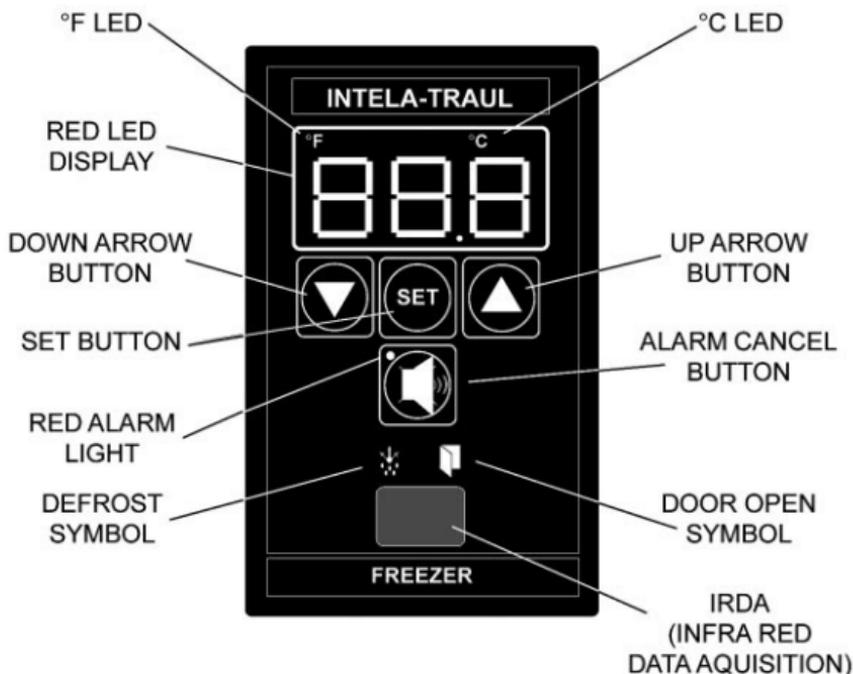
##### Discharge Sensor (R & A Series Only):

The discharge air sensor should be mounted on the hot gas side of the compressor. Placement should be as close to the compressor as possible and must be placed prior to the beginning of the hot gas loop. Please note that discharge sensors must be insulated.



## IV. CONTROL ARCHITECTURE

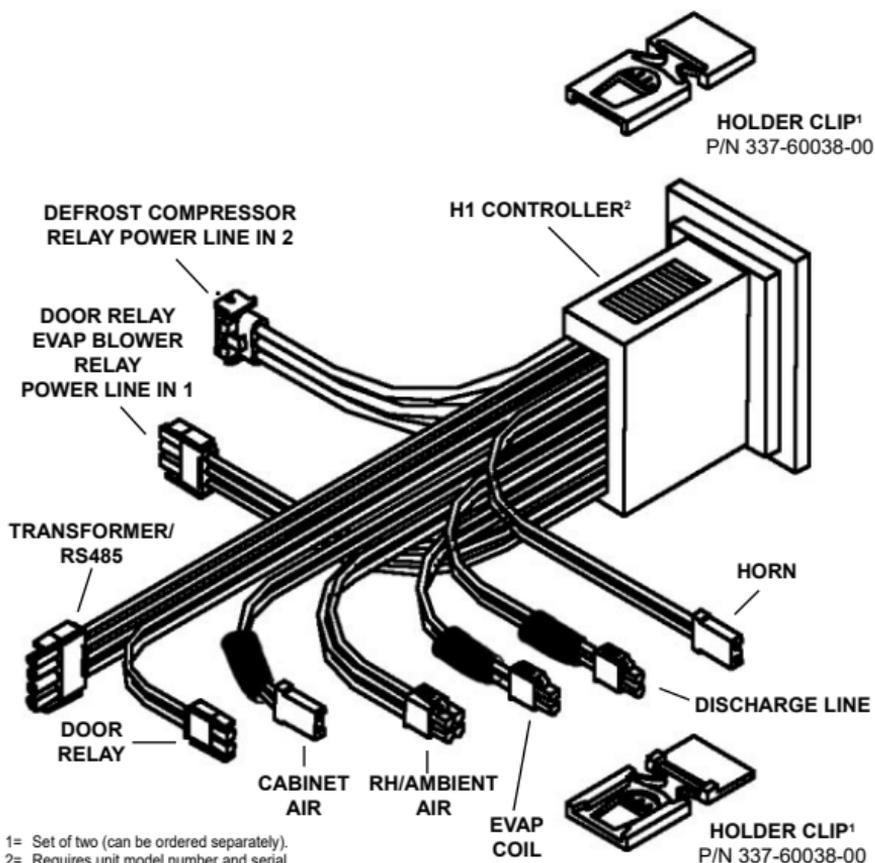
### IV. a - R & A SERIES REFRIGERATOR & FREEZER VERTICAL CONTROLLER:



**NOTES:** IRDA not included on equipment manufactured with the MIT II control version.

See parts assembly on pages 12-13.

# IV. CONTROL ARCHITECTURE



**COIL SENSOR<sup>3</sup>**  
P/N 337-60071-02



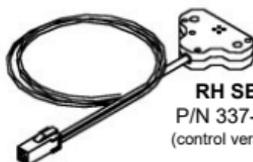
**DISCHARGE SENSOR<sup>3</sup>**  
P/N 337-60072-00



**CABINET SENSOR<sup>3</sup>**  
P/N 337-60069-02



**HORN<sup>3</sup>**  
P/N 337-60070-00

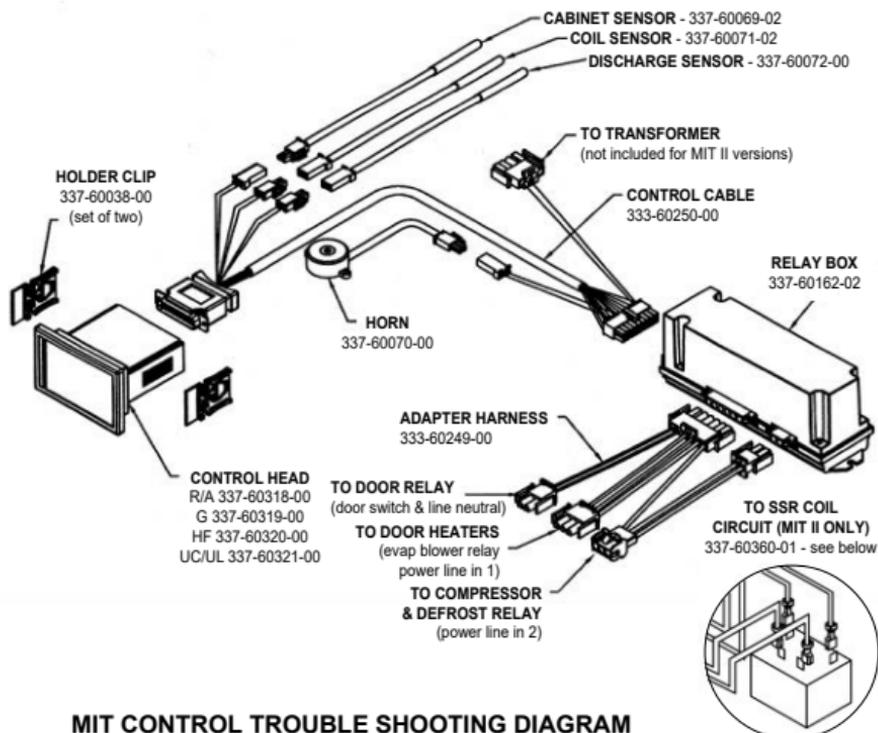


**RH SENSOR<sup>3</sup>**  
P/N 337-60080-00  
(control versions H only)

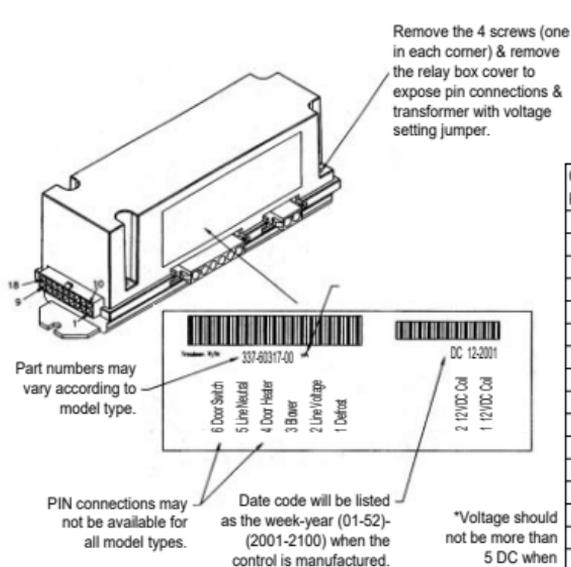
3= Component can be ordered separately.

# IV. CONTROL ARCHITECTURE

## IV. b - R & A SERIES REFRIGERATOR & FREEZER VERTICAL CONTROLLER: Parts assembly for H1 thru MIT control versions only



### MIT CONTROL TROUBLE SHOOTING DIAGRAM



#### NOTE

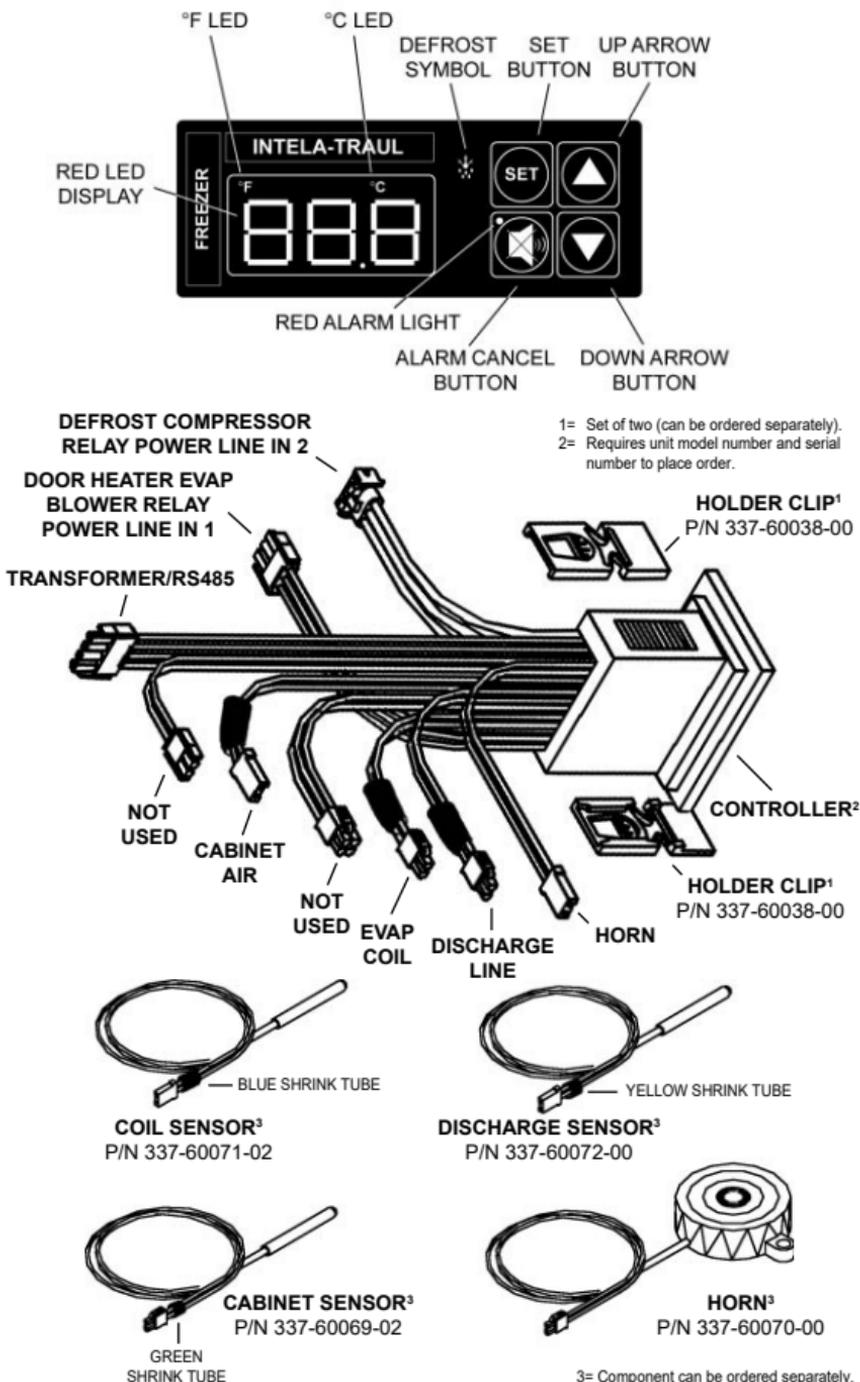
All pins in this connection should not read more than 20 VAC



Connector Pin No.	Color	Signal
1	Gray	Blower*
2	Orange	Door Heater*
3	Green	Alarm From Controller
4		
5		
6	Brown	
7	White/Purple	-RS485
8	Black	Ground
9	Yellow/Red	12 VAC
10	Blue	Compressor*
11	Purple	Defrost*
12	Yellow	Door Open Signal
13	Red	Power to Horn
14	Orange	
15	White	
16	Pink	+RS485
17	Red	12 VDC to Controller
18		

# IV. CONTROL ARCHITECTURE

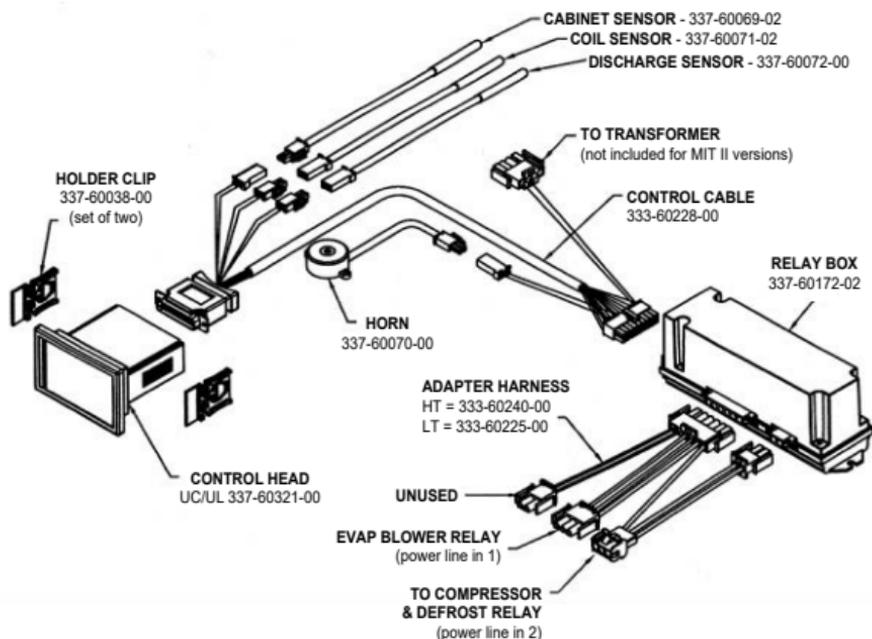
## IV. c - UC & UL (UNDERCOUNTER) HORIZONTAL CONTROLLER:



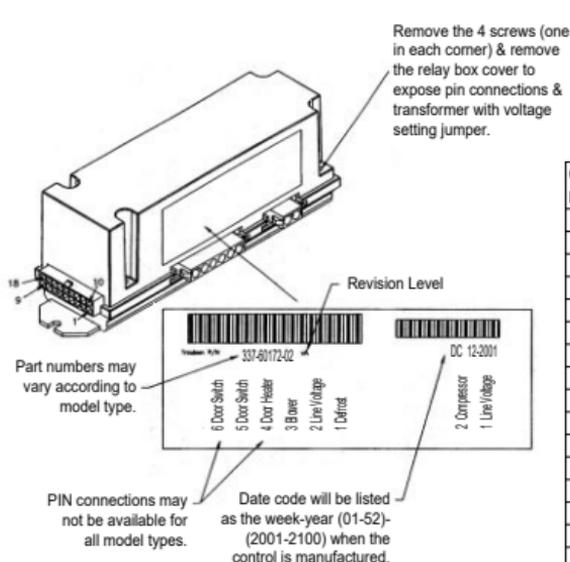
# IV. CONTROL ARCHITECTURE

## IV. c - UC & UL (UNDERCOUNTER) HORIZONTAL CONTROLLER:

### Parts assembly for MIT control version only



## MIT CONTROL TROUBLE SHOOTING DIAGRAM



### NOTE

All pins in this connection should not read more than 20 VAC

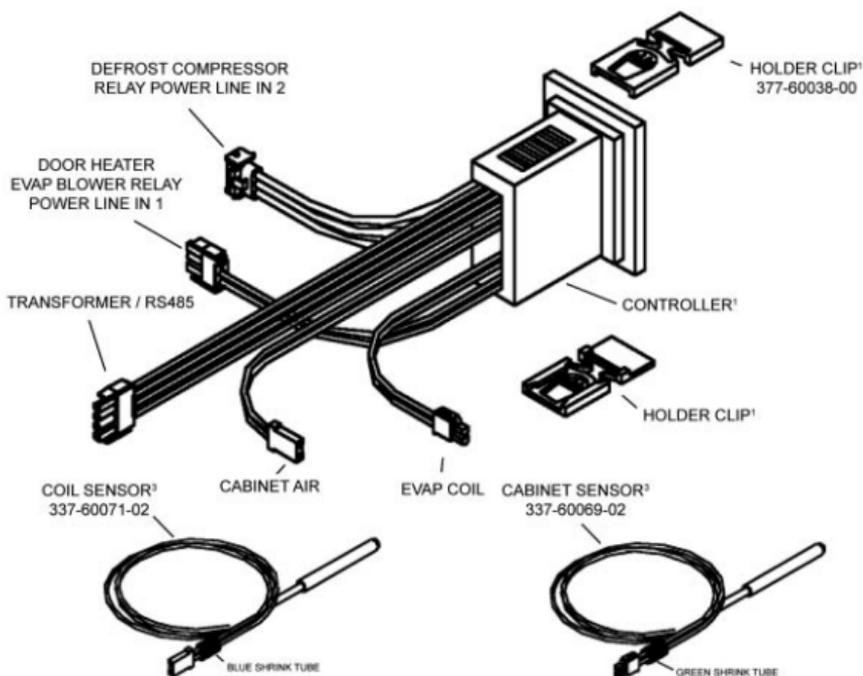
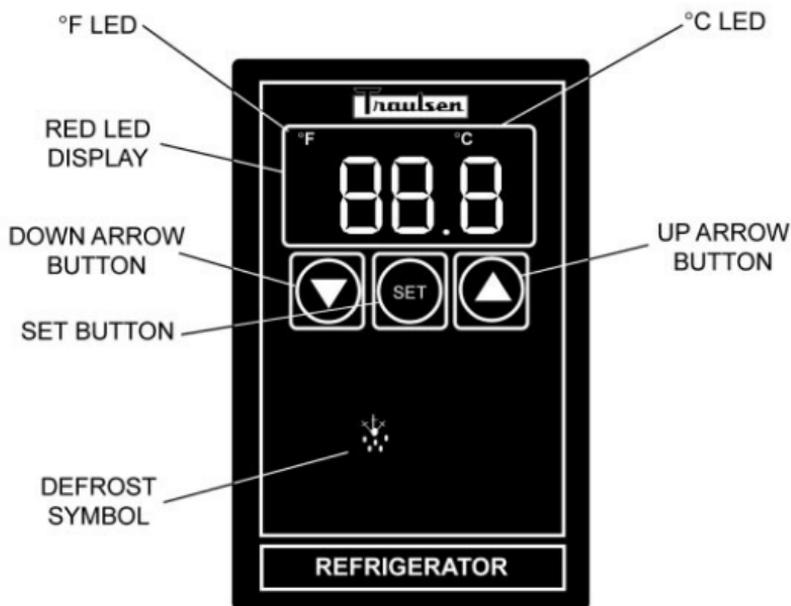


Connector Pin No.	Color	Signal
1	Gray	Blower*
2	Orange	Door Heater*
3	Green	Alarm From Controller
4	Black	Return From Horn
5		
6		
7	White/Purple	-RS485
8	Black	Ground
9	White	12 VAC
10	Blue	Compressor*
11	Purple	Defrost*
12	Yellow	Door Open Signal
13	Red	Power to Horn
14		
15		
16	Pink	+RS485
17	Red	12 VDC to Controller
18	Black	12 VAC

\*Voltage should not be more than 5 DC when measured to ground (pin 8).

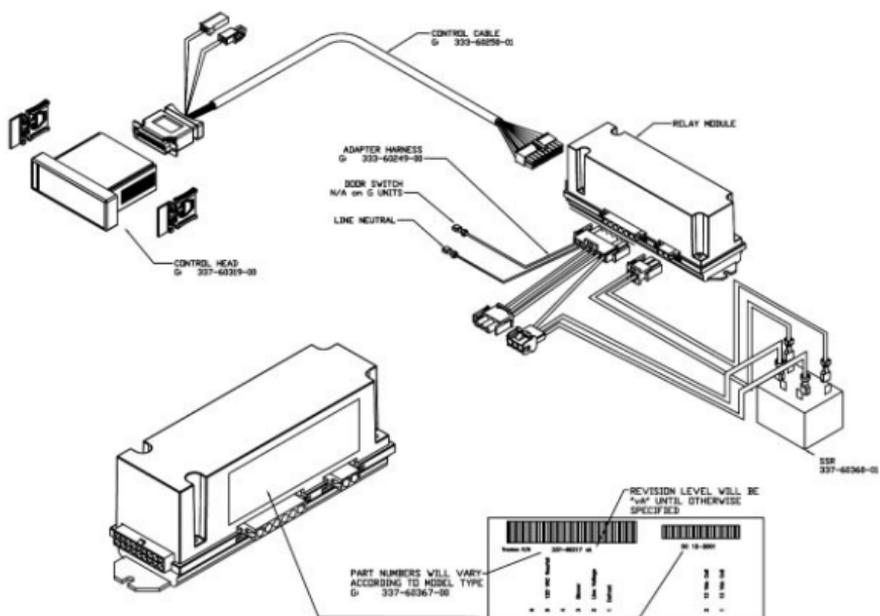
# IV. CONTROL ARCHITECTURE

## IV. d - G-SERIES REFRIGERATOR & FREEZER VERTICAL CONTROLLER:



# IV. CONTROL ARCHITECTURE

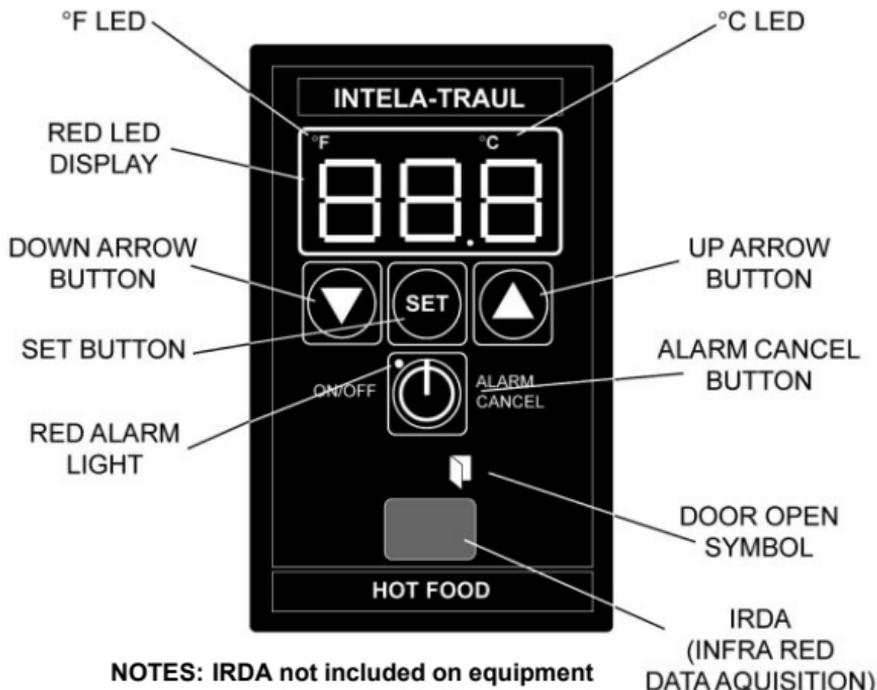
## IV. d - G-SERIES REFRIGERATOR & FREEZER VERTICAL CONTROLLER:



CONNECTOR PIN NUMBER	COLOR	SIGNAL
1		
2	GRAY	BURVER
3		
4		
5		
6		
7		
8	BLACK	GROUND
9	YELLOW/RED	POWER LINE FAILURE
10	BLUE	COMPRESSOR
11	PURPLE	DEFROST
12		
13	ORANGE	3 VDC FROM CONTROLLER
14		
15		
16	RED	12 VDC TO CONTROLLER

## IV. CONTROL ARCHITECTURE

### IV. e - R-SERIES HEATED CABINET VERTICAL CONTROLLER:



**NOTES:** IRDA not included on equipment manufactured with MIT II control version.

See parts assembly on pages 17-18.

#### **HOT FOOD CABINET START-UP (pre-MIT version):**

When power is first applied to the unit, you must set the temperature by pressing the "SET" and "UP ARROW" buttons at the same time using equal pressure with both thumbs, until the temperature appears on the display. Next, use the "UP" button to reach the desired temperature (maximum 180°), then press and release the "SET" button to lock it in.

After this is done you can turn the control ON and OFF by pressing and releasing the "ALARM CANCEL" button.

Be aware to watch for the display constantly reading "OFF". This is an indication of a possible faulty cabinet sensor. To remedy, replace the sensor and reset the operating temperature.

#### **HOT FOOD CABINET START-UP (MIT version):**

The MIT control offers an additional means of turning the cabinet heaters ON and OFF. After the operating temperature has been set, the operator can continuously turn the unit OFF and then back ON again to the same operating temperature by pressing the "ON/OFF" button on the face of the control.

Please note that this feature will not function if the control is in an alarm state with the alarm LED illuminated.

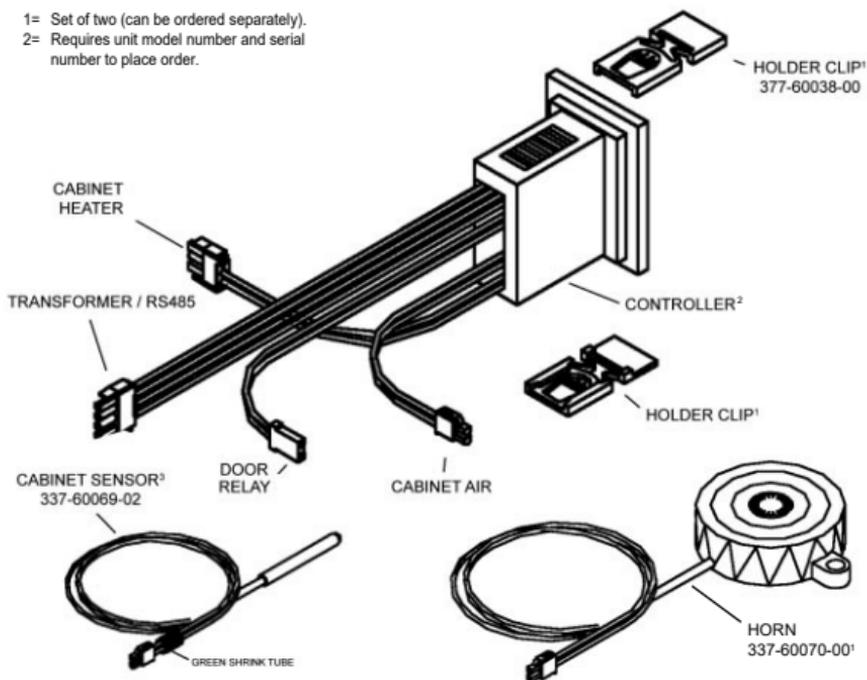
## IV. CONTROL ARCHITECTURE

### IV. e - R-SERIES HEATED CABINET VERTICAL CONTROLLER:

#### Parts assembly for H1 control versions only

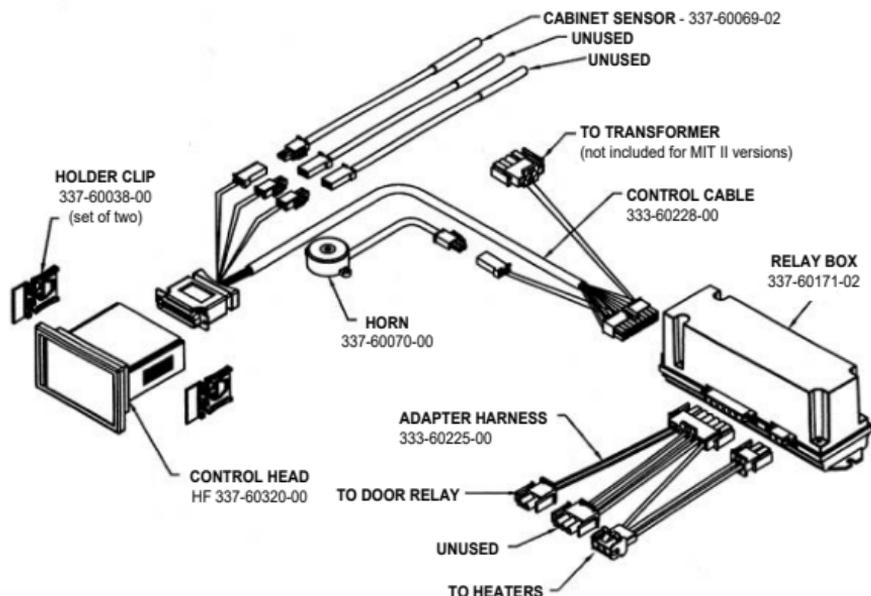
1= Set of two (can be ordered separately).

2= Requires unit model number and serial number to place order.

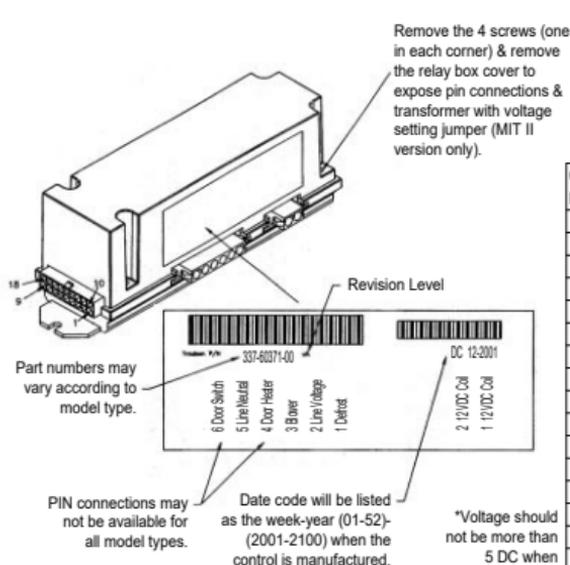


# IV. CONTROL ARCHITECTURE

## IV. e - R-SERIES HEATED CABINET VERTICAL CONTROLLER: Parts assembly for MIT control versions only



### MIT CONTROL TROUBLE SHOOTING DIAGRAM



#### NOTE

All pins in this connection should not read more than 20 VAC



Connector Pin No.	Color	Signal
1	Gray	Blower*
2	Orange	Door Heater*
3	Green	Alarm From Controller
4	Black	Return To Horn
5		
6		
7	White/Purple	-RS485
8	Black	Ground
9	White	12 VAC
10	Blue	Compressor*
11	Purple	Defrost*
12	Yellow	Door Open Signal
13	Red	Power to Horn
14		
15		
16	Pink	+RS485
17	Red	12 VDC to Controller
18	Black	12VAC

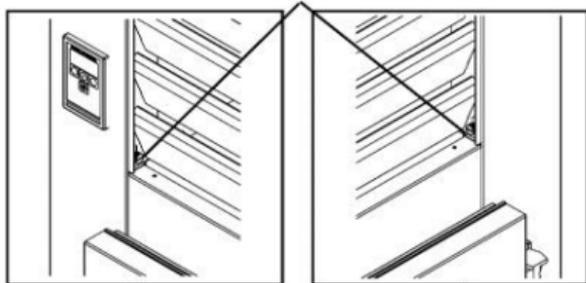
\*Voltage should not be more than 5 DC when measured to ground (pin 8).

## V. REMOVAL/INSTALLATION

### V. a - ALL VERTICAL CONTROLLERS:

To remove INTELA-TRAUL® (p/n's 337-60090-00, 337-60091-00 and 337-60092-00) and G-Series (p/n's 337-60093-00, 337-60094-00 and 337-60095-00) Vertical Controller from the unit in which it is installed, proceed as follows (If unable to access the unit from the rear perform steps 1 through 3, otherwise, proceed to step 4):

#### (2) SLOT HEAD THUMBSCREWS

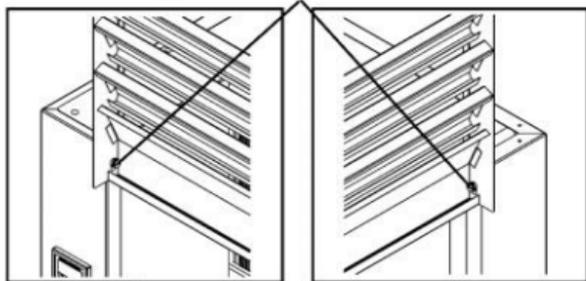


LOUVER  
ASSEMBLY

TYPICAL UNIT

1. At front of unit, remove two (2) slot head thumb screws from bottom corners of louver assembly. Set thumbscrews aside.

#### (2) SLOT HEAD THUMBSCREWS



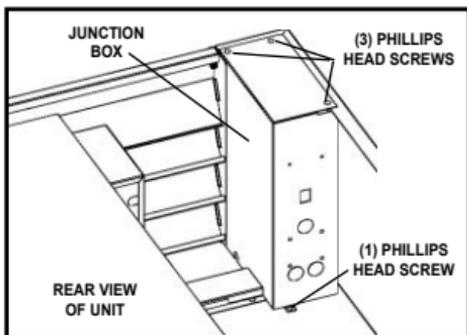
LOUVER  
ASSEMBLY  
(IN RAISED  
POSITION)

2. Swing louver assembly up and away from front of unit until it stops.
3. Remove two (2) Slot head thumbscrews from top of louver assembly. Set thumbscrews and louver assembly aside.

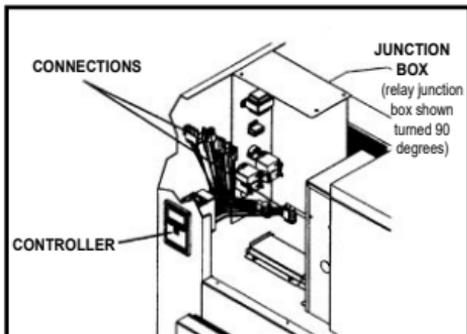
## V. REMOVAL/INSTALLATION

**WARNING: DISCONNECT ALL POWER BEFORE PROCEEDING**

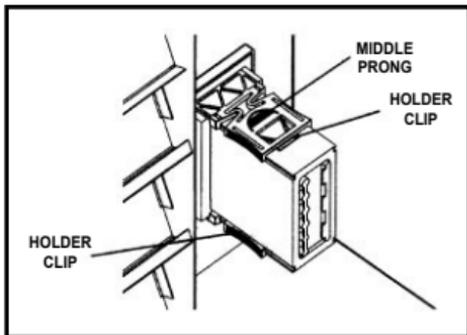
- At the top of the junction box, remove three (3) Phillips head screws. Set screws aside.
- Locate one (1) Phillips head screw at bottom of junction box, and remove. Set screw aside.



- Carefully slide junction box away from front of unit until all wiring and connections to the controller are exposed.
- Locate all nine (9) Controller connections (five for G-Series), then carefully disconnect each one.



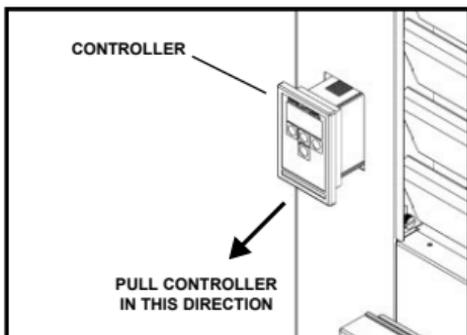
- Firmly grasp and compress the rounded portion of the middle prong on each holder clip. Slowly slide each holder clip off the controller. Set clips aside.



**NOTE:**

**Be sure ALL components have been disconnected from the Controller before performing the next step.**

- Slowly pull Controller through mounting hole and set aside.



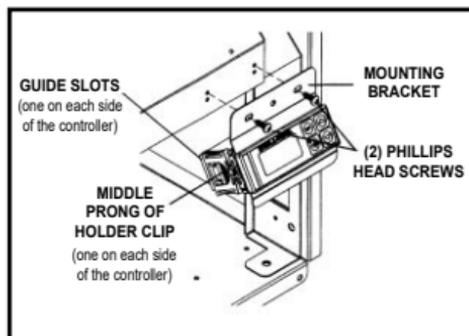
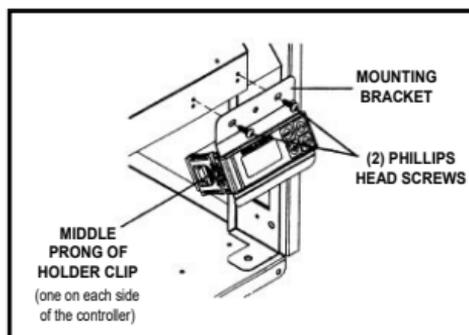
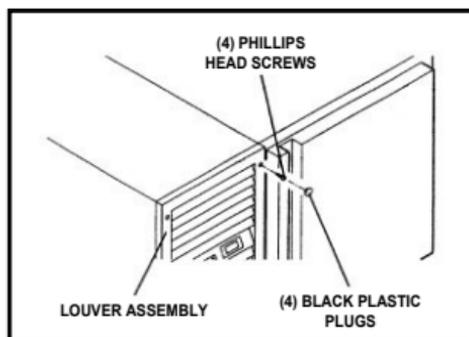
**TO RE-INSTALL CONTROLLER, REVERSE THE PRECEEDING PROCEDURE.**

## V. REMOVAL/INSTALLATION

### V. a - ALL HORIZONTAL CONTROLLERS:

To remove INTELA-TRAUL® (p/n's 337-60096-00 and 337-60097-00) Horizontal Controller from the unit in which it is installed, proceed as follows:

**WARNING: DISCONNECT ALL POWER BEFORE PROCEEDING**



1. Check to make sure that the power cable is disconnected from the wall.
2. Remove the four (4) black plugs that are located in each corner of the power pack louver assembly. Set plugs aside.
3. Remove the four (4) Phillips head screws holding the louver assembly in place. Set screws and louver assembly aside.
4. Remove the two (2) Phillips head screws that hold the Controller and the bracket assembly to the condenser fan assembly. Set screws aside.
5. Locate all nine (9) Controller connections, then carefully disconnect each one.
6. Firmly grasp and compress the rounded portion of the middle prong on each holder clip. Slowly slide each holder clip off the Controller. Set clips aside.

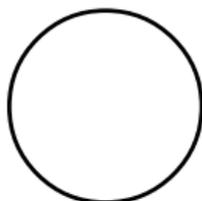
**TO RE-INSTALL CONTROLLER, REVERSE THE PRECEDING PROCEDURE.**

## VI. PROBLEM DIAGNOSIS

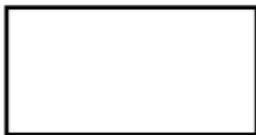
### VI. a - HOW TO USE THE TROUBLESHOOTING TREES:

The troubleshooting trees on the following pages were developed as an aid to the service technician in determining the exact solution to a certain problem or malfunction. When used as designed, the troubleshooting trees can lead you from a general symptom to the most likely component to suspect as the cause of the problem.

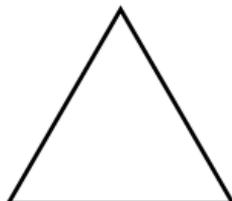
The trees are made up of three different types of boxes:



**QUESTION**



**CHECK**



**SOLUTION**

#### **QUESTION**

Boxes ask a yes/no question and the answer will lead to either another question box, a check box, or a solution box.

#### **CHECK**

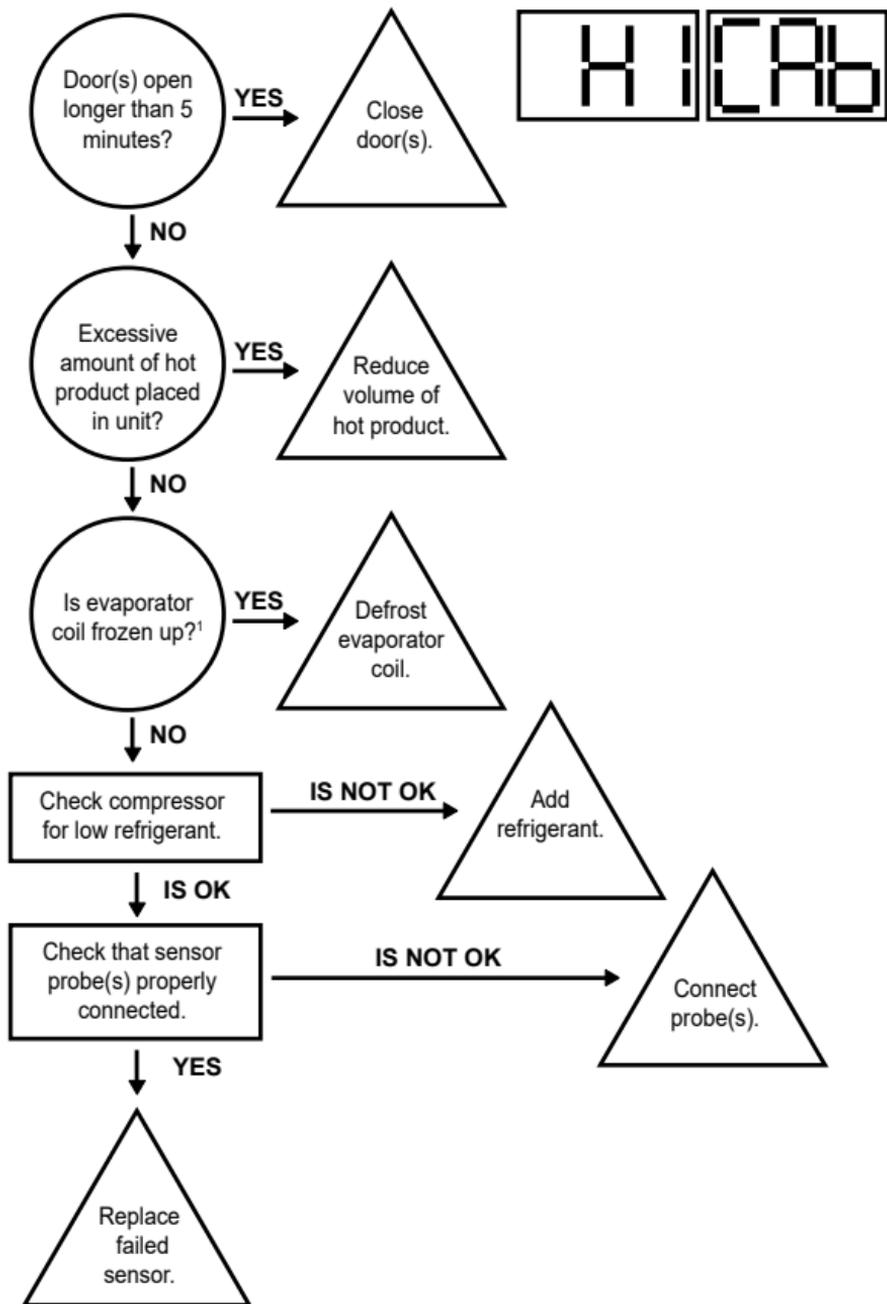
Boxes will suggest a point to check for proper operation, and will often refer you to a page in either the SERVICE INFORMATION or the REMOVAL/INSTALLATION sections of this manual. The result of the check may lead to another box, or a solution box.

#### **SOLUTION**

Boxes suggest the most likely component to cause the malfunction described in the heading of the tree. When reaching a solution box, do not immediately assume the component is defective. The final step is to use the SERVICE INFORMATION section of this manual to verify that the component is defective.

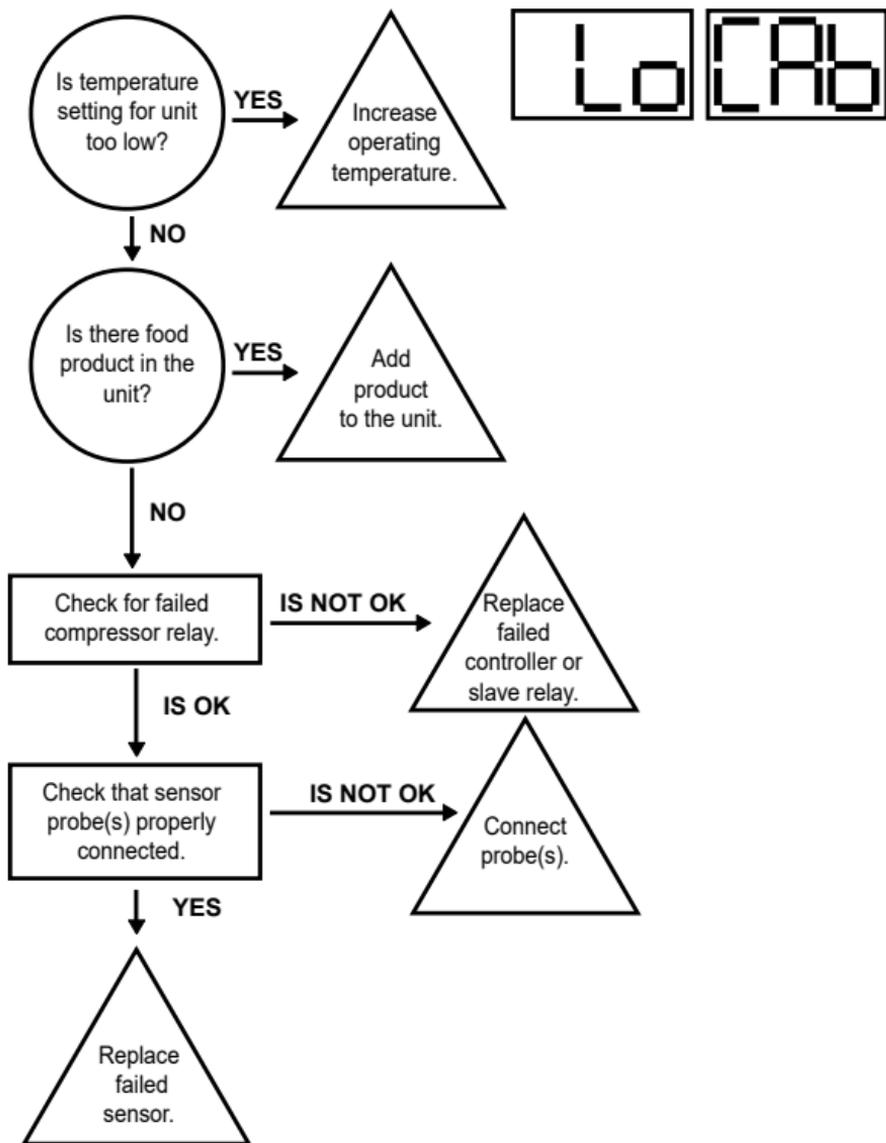
To use the troubleshooting trees, first find the page with the heading describing the type of problem occurring. Begin at the top of the page and follow the tree, step-by-step. When a check box is reached, refer to the suggested section to make the check suggested. Once a solution box is reached, refer to the suggested section to verify that the component in the solution box is indeed defective, and repair or replace per the direction in that section.

## VI. b- HIGH TEMPERATURE ALARM



<sup>1</sup>= See procedure on page 9.

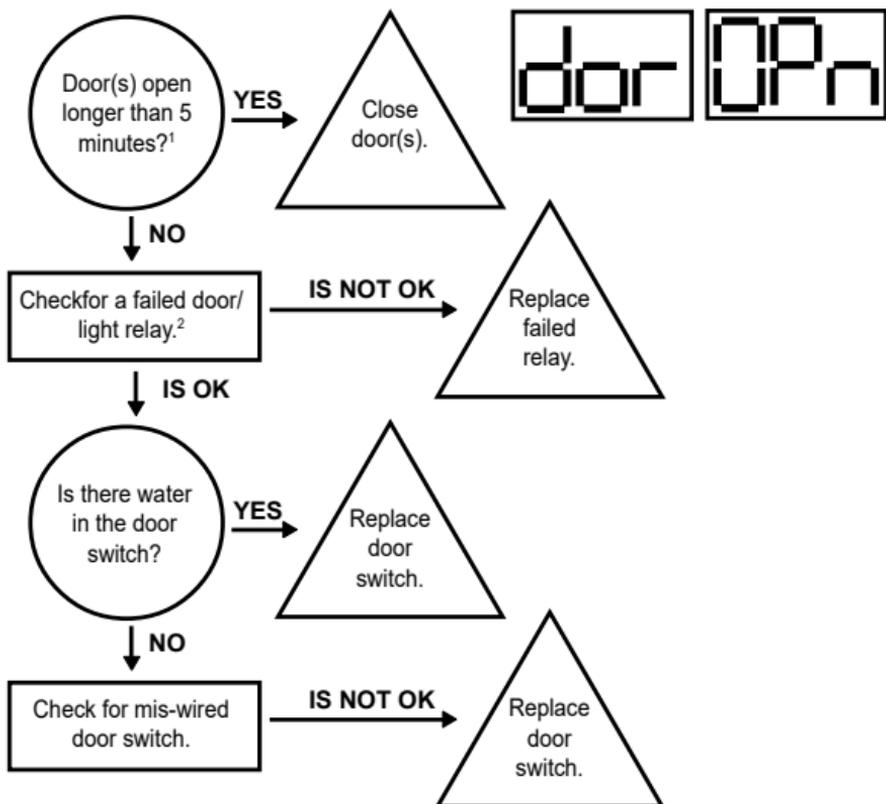
## VI. c- LOW TEMPERATURE ALARM



### **NOTE ON HOT FOOD UNITS ONLY**

Hot food units are designed to hold hot food at set temperature. The cabinet is not designed to heat cold products.

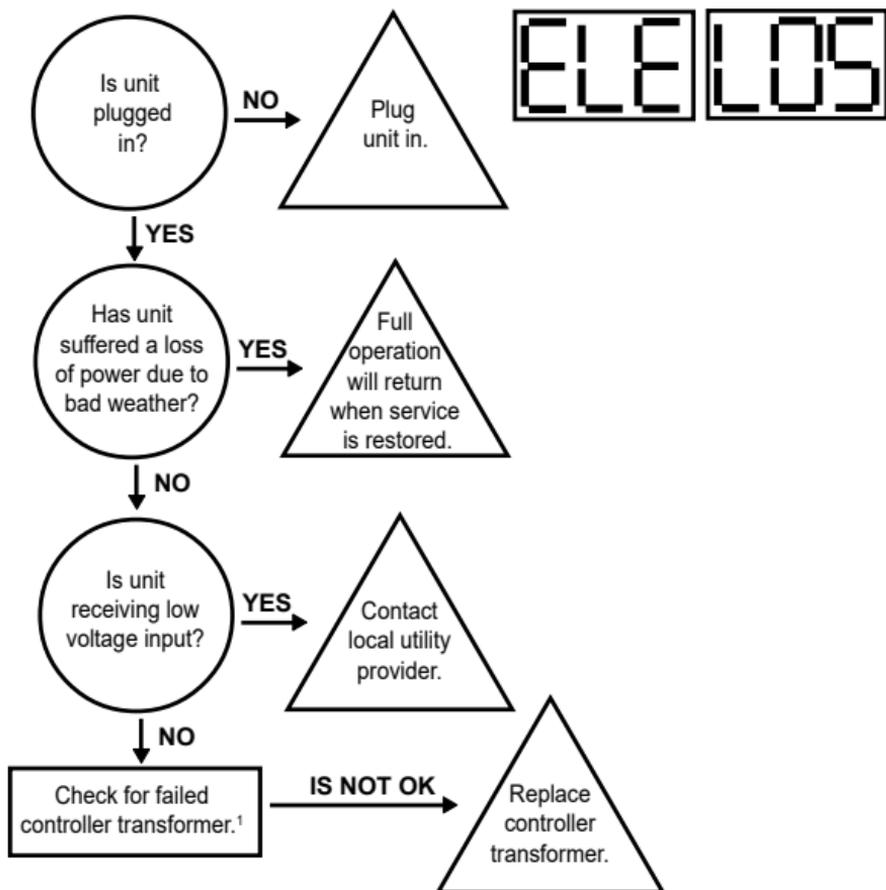
## VI. d- DOOR OPEN ALARM



1= H1 and MIT 1 control versions only.

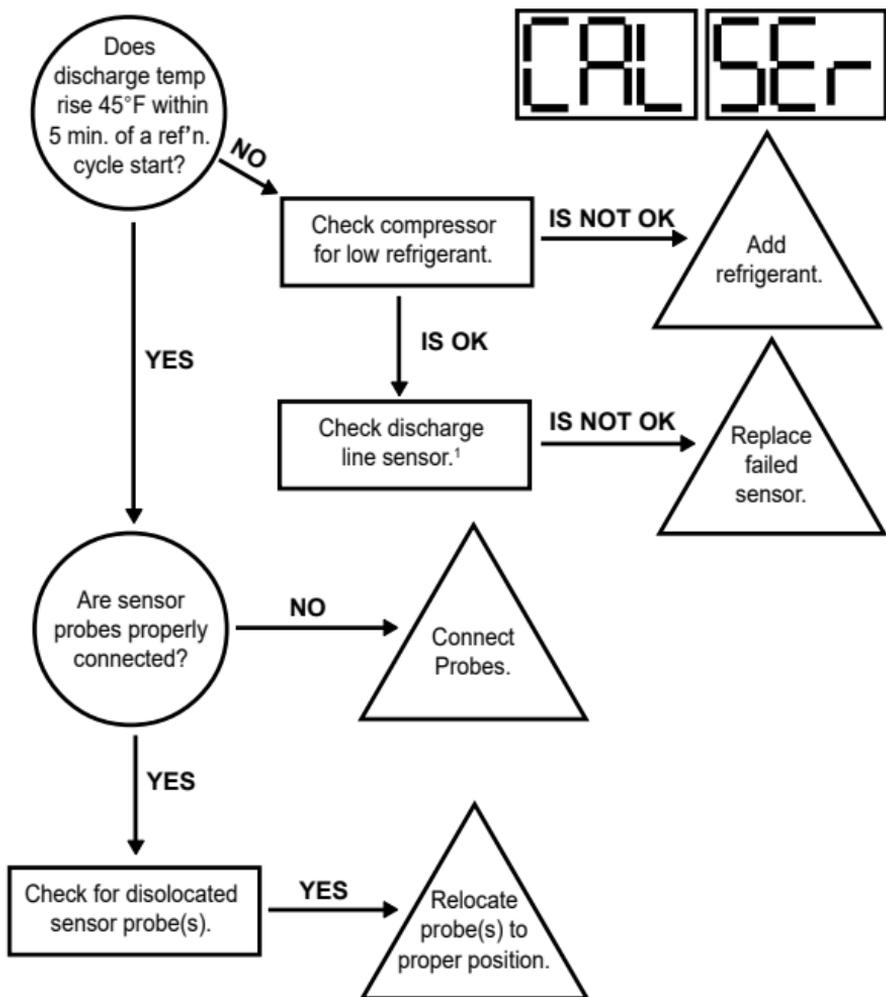
2= See procedure on page 7.

## VI. e- POWER LOSS ALARM



1= See procedure on page 8.

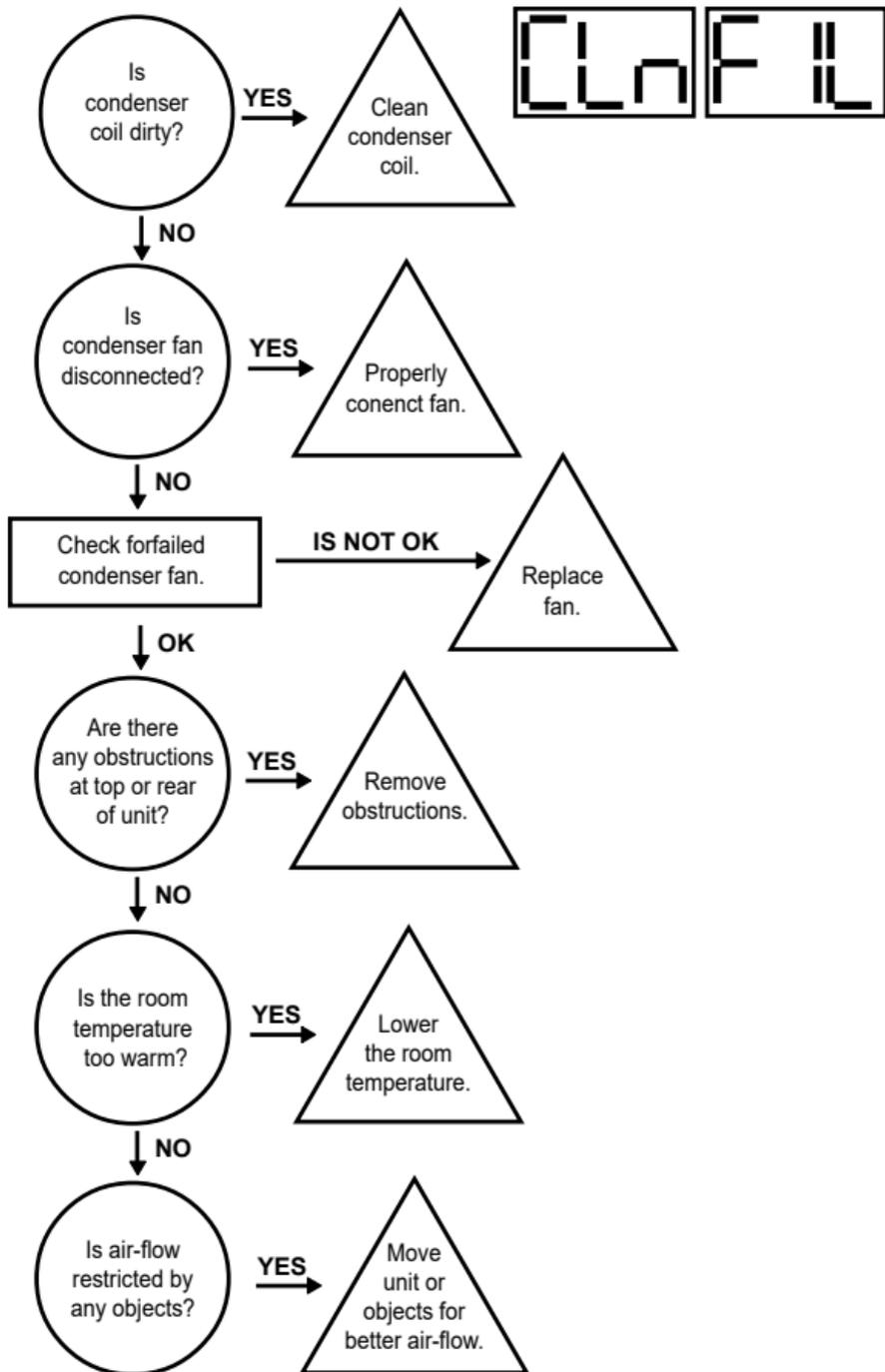
## VI. f- SYSTEM LEAK ALARM



CALSER

<sup>1</sup>= See procedure on page 8.

## VI. g - CONDENSERCLEAN ALARM



## VII. ACCESSING THE ENGINEERING LEVEL

### VII. a - ACCESSING THE ENGINEERING LEVEL:

Not all control parameters can be adjusted at the customers level of access. To adjust these other parameters it is first necessary to gain access to the ENGINEERING LEVEL. Please follow the below procedure in order to enter this level.

	The Display Will Read
Step 1: Press  . Display will read "CUS."	
Step 2: Press  until "EnG" is displayed.	
Step 3: Press  . Display will read "000" with the left digit flashing.	
Step 4: Press  until the left digit changes to an "9".	
Step 5: Press  . Display will read "900" with the center digit flashing.	
Step 6: Press  until the center digit changes to an "9".	
Step 7: Press  . Display will read "990" with the right digit flashing.	
Step 8: Press  until the right digit changes to an "E".	
Step 9: The display will read (99E), press  .	
Step 10: Press  . The display will now read "FOC" - See Note.	

NOTE: R & A Series Only, for G-Series models press  for the control to display "FOC."

## VIII. CONTROL PARAMETERS

### VIII. a - PARAMETER DESCRIPTIONS:

FOC	3-digit code which identifies the .hex file loaded at the factory.
ADR	Device address for NAFEM networks.
BAU	Communications rate when connected into a NAFEM network.
NAF	Allow the control to communicate with a NAFEM network.
SPH	High value of desired cabinet temperature range.
SPL	Low value of desired cabinet temperature range.
SHL	Lowest temperature of allowed range for setting of SPH.
SHH	Highest temperature of allowed range for setting of SPH.
SLL	Lowest temperature of allowed range for setting of SPL.
SLH	Highest temperature of allowed range for setting of SPL.
RO	Difference, in degrees, between displayed & measured temperature.
HI	The highest temperature the cabinet air temperature is allowed to reach before triggering a High-Temp alarm.
LO	The lowest temperature the cabinet air temperature is allowed to reach before triggering a Low-Temp alarm.
SCL	Sets the temperature display scale (fahrenheit or celsius).
HAD	Time, in minutes, that the controller delays triggering the High-Temp alarm at any start-up or at the end of a defrost cycle.
LAD	Time, in minutes, that the controller delays triggering the Low-Temp alarm if cabinet air temperature equal or below SPL setting.
AC	The amount of time, in minutes, that the compressor must be off between cycles.
DEF	Defines the type of heat used to defrost the coil: Electric, Hot Gas, None or Off-Cycle.
IBD	The amount of time, in hours, between the end of the drip time& start of the next defrost cycle.
DDC	The maximum amount of time, in minutes, that the heat will be on during a defrost cycle.
CDE	The temperature of the evaporator coil that indicates the end of a defrost heat cycle.
DDE	The amount of time, in minutes, between the defrost heat being turned off and the compressor turning on.
BDD	The delay time, in minutes, between the end of the drip time and and before the evaporator blower turns on.
BSD	The temperature of the evaporator coil that triggers the evaporator blower to turn on after drip time ends.
ODD	The maximum amount of time, in minutes, that the display will read the last temperature recorded before entering the defrost cycle.
SD	Allows a technician to start or stop a defrost cycle.
CFA	Allows the customer to turn the clogged filter alarm ON/OFF ( R & A Series only).
CCR	The minium amount of time, in minutes, that the compressor must be running before generating a clogged filter alarm.
CDL	The discharge line temperature that will trigger a clogged filter alarm.
DOA	Allows the customer to turn the door open alarm ON/OFF in units equipped with the appropriate hardware.
DAD	The time, in minutes, that a door must be open before triggering a door open alarm.

## VIII. CONTROL PARAMETERS

### VIII. a - PARAMETER DESCRIPTIONS (continued):

APD	The amount of time, in seconds, that a visual alarm text will be displayed.
ATD	Alarm temperature delay.
AAS	Allows the customer to set the type of audible alarm style, either Blast, OFF or Continuous.
CL	Allows the customer to set the time of day.
DAY	Allows the customer to set the date.
DS	Sets daylight savings time On or OFF.
DL1	Selects the time to start a defrost lockout.
DL2	Selects the time to start a defrost lockout.
DL3	Selects the time to start a defrost lockout.
DL4	Selects the time to start a defrost lockout.
DCF	Allows the customer to set the percentage of time that the door perimeter heaters will operate, to control surface condensation.
CON	The amount of time the compressor will run in the event of a cabinet air sensor failure.
COF	The amount of time, in minutes, that the compressor will be OFF in the event of a cabinet air sensor failure.
EL	Displays the evaporator temperature at the time (press set or the up arrow button to display this feature).
DL	Displays the discharge line temperature at the time (press set or the up arrow button to display this feature).
CB	When activated (by pressing the set or up arrow buttons), will display the cabinet air temperature at the time the button is pressed.
PLn	When activated will display the approximate line voltage.
RCO	Will energize the compressor relay for 10 seconds when activated.
RdF	Will energize the heater relay for 10 seconds when activated.
RFA	Will energize the blower relay for 10 seconds when activated.
RDH	Will energize the door heater relay for 10 seconds when activated.
Pro	Parameter used only when reflashing the program memory.
CEP	When activated, will return all of the parameters to the initial factory settings.
REF	Displays the revision level of the software loaded into memory.

# VIII. CONTROL PARAMETERS

## VIII. b - PARAMETER ACCESS & UNITS OF MEASUREMENT:

H1, MIT I & MIT II CONTROL VERSIONS ONLY

Control Parameter	Description	Access	Unit of Measure
ADR*	Device Address	ENG	
BAU*	Comm. Baud Rate in K	ENG	KBaud
NAF*	NAFEM Communications Enable	ENG	On/Off
SPH	Temperature Set-Point High	CUS	Degree
SPL	Temperature Set-Point Low	CUS	Degree
SHL	Set-Point High/Low	ENG	Degree
SHH	Set-Point High/High	ENG	Degree
SLL	Set-Point Low/Low	ENG	Degree
SLH	Set-Point Low/High	ENG	Degree
RO	Room Offset	CUS	Degree
HI	Upper Temperature Limit	ENG	Degree
LO	Lower Temperature Limit	ENG	Degree
SCL	Temperature Scale	CUS	F or C
HAD	High-Temperature Alarm Delay	ENG	Minute
LAD	Low-Temperature Alarm Delay	ENG	Minute
AC	Anticycling	ENG	Minute
DEF	Defrost Type	ENG	Electric/Gas/Off
IBD	Intervals Between Defrosts	ENG	Hours
DDC	Maximum Defrost Duration	ENG	Minute
CDE	Coil Temperature At End of Defrost Cycle	ENG	Degree
DDE	Drip Time At End of Defrost Cycle	ENG	Minute
BDD	Blower Delay At Drip Time	ENG	Minute
BSD	BSD After Defrost End	ENG	Degree
ODD	Display Hold After Defrost	ENG	Minute
SD	Start/Stop Defrost	CUS	Start/Stop
CFA	Clogged Filter Alarm	n/a	On/Off
CCR	Clogged Filter Compressor Run Time	n/a	Minute
CDL	Clogged Filter Alarm Temperature	n/a	Degree
DOA	Door Open Alarm	ENG	On/Off
DAD	Door Display Alarm Delay	ENG	Minute
APD	Alarm Pause Delay	ENG	Second
ATD	Alarm Temperature Delay	ENG	Second
AAS	Audible Alarm Style	CUS	On/Off
CL	Set The Clock Time	CUS	H/N/S
DAY	Set The Clock Date	CUS	Y/N/D
DS	Daylight Savings	CUS	On/Off
DL1	Defrost Lockout 1	CUS	Time/Off
DL2	Defrost Lockout 2	CUS	Time/Off
DL3	Defrost Lockout 3	CUS	Time/Off
DL4	Defrost Lockout 4	CUS	Time/Off
DCF	Dewpoint Correction Factor	CUS	%
CON	Compressor Default On Time	ENG	Minute
COF	Compressor Off Time	ENG	Minute
EL	Evaporator Coil Temperature	CUS	Degree
DL	Discharge Line Temperature	CUS	Degree
CB	Cabinet Air Temperature	CUS	Degree
PLn*	Display Line Voltage	ENG	Volts
RCO*	Cycle Compressor Relay	ENG	On/Off
RdF*	Cycle Defrost Relay	ENG	On/Off
RFA*	Cycle Blower/Fan Relay	ENG	On/Off
RDH*	Cycle Door Heater Relay	ENG	On/Off
PRO*	Go To Bootloader For Programming	ENG	
CEP*	Clear EEPROM & Load Defaults	ENG	
REF*	Software Version/Revision/Step	n/a	

\*MIT II control version only.

# VIII. CONTROL PARAMETERS

## VIII. c - G-SERIES PARAMETER SETTINGS (MIT II Control Version):

Control Parameter	Freezer Models				Refrigerator Models		
	GF1	GF2	GF3	GF4	GR1	GR2	GR3
ADR*	2	2	2	2	2	2	2
BAU*	9.6	9.6	9.6	9.6	9.6	9.6	9.6
NAF*	ON	ON	ON	ON	ON	ON	ON
SPH	-5.2	0.1	0.1	32	38.1	39.2	39.2
SPL	-10	-4	-4	26.1	34	37	37
SHL	-8	-3.1	-3.1	30.2	36	39.2	39.2
SHH	-5.2	0.1	0.1	34	40	40	40
SLL	-13	-6.2	-6.2	26.1	32	34	34
SLH	-10	-4	-4	28	34	37	37
RO	0	0	0	0	0	0	0
HI	0.1	5	5	35.2	41	41	41
LO	-18.4	-10	-10	20	30.2	30.2	30.2
SCL	F	F	F	F	F	F	F
HAD	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LAD	n/a	n/a	n/a	n/a	n/a	n/a	n/a
AC	3	3	3	3	3	3	3
DEF	ELE	ELE	ELE	ELE	OFF	ELE	OFF
IBD	4.0	4.0	4.0	4.0	1.0	2.0	1.0
DDC	20	20	20	20	10	20	10
CDE	75	75	75	75	45.1	70	45.1
DDE	2	2	2	2	2	2	2
BDD	1	1	1	1	0	0	0
BSD	32	32	32	32	32	32	32
ODD	10	10	10	10	10	10	10
SD	Starts a new defrost cycle at any time or stops a current defrost cycle.						
CFA	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CCR	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CDL	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DOA	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DAD	n/a	n/a	n/a	n/a	n/a	n/a	n/a
APD	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ATD	n/a	n/a	n/a	n/a	n/a	n/a	n/a
AAS	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CL	Set the hours and minutes in military time.						
DAY	Set the year, month, day of the month and day of the week.						
DS	ON	ON	ON	ON	ON	ON	ON
DL1	OFF	OFF	OFF	OFF	OFF	OFF	OFF
DL2	OFF	11:30am	OFF	OFF	OFF	OFF	OFF
DL3	OFF	5:30pm	OFF	OFF	OFF	OFF	OFF
DL4	OFF	OFF	OFF	OFF	OFF	OFF	OFF
DCF	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CON	19	19	19	19	11	11	11
COF	7	7	7	7	10	10	10
EL	Will display evaporator coil temp in real time every time an arrow is pressed.						
DL	Will display discharge line temp in real time every time an arrow is pressed.						
CB	Will display cabinet air temp in real time every time an arrow is pressed.						
PLn*	Will display power line voltage in real time every time an arrow is pressed.						
RCO*	Turns ON/OFF the compressor relay for 10-seconds or until an arrow is pressed.						
RdF*	Turns ON/OFF the defrost relay for 10-seconds or until an arrow is pressed.						
RFA*	Turns ON/OFF the blower relay for 10-seconds or until an arrow is pressed.						
RDH*	Turns ON/OFF the door heater triac for 10-seconds or until an arrow is pressed.						
PRO*	Set the controller in receiving mode for programming.						
CEP*	Clear all controller memories and reloads the factory default parameters.						
REF*	Firmware revision in the format X9.9 (X=version, 9=major revision, 9=minor revision).						

\*MIT II control version only.

## VIII. CONTROL PARAMETERS

### VIII. d - R-SERIES PARAMETER SETTINGS (MIT II Control Version):

Control Parameter	Refrigerator Models							
	RA1	RA2	RA3	RA4	RA5	RA6	RA7	RA8
ADR	2	2	2	2	2	2	2	2
BAU	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
NAF	ON	ON	ON	ON	ON	ON	ON	ON
SPH	39.2	39.2	39.2	39.2	38.1	38.1	39.2	39.2
SPL	37	37	37	37	34	34	37	37
SHL	39.2	39.2	39.2	39.2	36	36	39.2	39.2
SHH	40	40	40	40	40	40	40	40
SLL	34	34	34	34	32	32	34	34
SLH	37	37	37	37	34	34	37	37
RO	0	0	0	0	0	0	0	0
HI	41	41	41	41	41	41	41	41
LO	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2
SCL	F	F	F	F	F	F	F	F
HAD	15	15	15	15	15	15	15	15
LAD	2	2	2	2	2	2	2	2
AC	3	3	3	3	3	3	3	3
DEF	OFF	OFF	OFF	OFF	OFF	OFF	ELE	ELE
IBD	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
DDC	10	10	10	10	10	10	20	20
CDE	45.1	45.1	45.1	45.1	45.1	45.1	70	70
DDE	2	2	2	2	2	2	2	2
BDD	0	0	0	0	0	0	0	0
BSD	32	32	32	32	32	32	32	32
ODD	10	10	10	10	10	10	10	10
SD	Starts a new defrost cycle at any time or stops a current defrost cycle.							
CFA	OFF	ON	OFF	ON	ON	ON	OFF	ON
CCR	20	20	20	20	20	20	20	20
CDL	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1
DOA	ON	ON	ON	ON	ON	ON	ON	ON
DAD	15	15	15	15	15	15	15	15
APD	2	2	2	2	2	2	2	2
ATD	10	10	10	10	10	10	10	10
AAS	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
CL	Set the hours and minutes in military time.							
DAY	Set the year, month, day of the month and day of the week.							
DS	ON	ON	ON	ON	ON	ON	ON	ON
DL1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
DL2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
DL3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
DL4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
DCF	100	100	100	100	100	100	100	100
CON	11	11	11	11	11	11	11	11
COF	10	10	10	10	10	10	10	10
EL	Will display evaporator coil temp in real time every time an arrow is pressed.							
DL	Will display discharge line temp in real time every time an arrow is pressed.							
CB	Will display cabinet air temp in real time every time an arrow is pressed.							
PLN*	Will display power line voltage in real time every time an arrow is pressed.							
RCO*	Turns ON/OFF the compressor relay for 10-seconds or until an arrow is pressed.							
RdF*	Turns ON/OFF the defrost relay for 10-seconds or until an arrow is pressed.							
RFA*	Turns ON/OFF the blower relay for 10-seconds or until an arrow is pressed.							
RDH*	Turns ON/OFF the door heater triac for 10-seconds or until an arrow is pressed.							
PRO*	Set the controller in receiving mode for programming.							
CEP*	Clear all controller memories and reloads the factory default parameters.							
REF*	Firmware revision in the format X9.9 (X=version, 9=major revision, 9=minor revision).							

\*MIT II control version only.

## VIII. CONTROL PARAMETERS

### VIII. e - R-SERIES PARAMETER SETTINGS (MIT II Control Version):

Control Parameter	Freezer Models				
	RF1	RF2	RF3	RF4	RF5
ADR	2	2	2	2	2
BAU	9.6	9.6	9.6	9.6	9.6
NAF	ON	ON	ON	ON	ON
SPH	-15.4	-10	0.1	0.1	-5.2
SPL	-20.2	-15.4	-4	-4	-10
SHL	-15.4	-13.6	-2.2	-2.2	-8
SHH	-10	-10	0.1	0.1	-5.2
SLL	-20.2	-20.2	-6.2	-6.2	-13
SLH	-17	-15.4	-4	-4	-10
RO	0	0	0	0	0
HI	5.2	5.2	5	5	0.1
LO	-25.6	-25.6	-10	-10	-17.8
SCL	F	F	F	F	F
HAD	15	15	15	15	15
LAD	2	2	2	2	2
AC	3	3	3	3	3
DEF	ELE	ELE	ELE	ELE	ELE
IBD	4.0	4.0	4.0	4.0	4.0
DDC	30	20	20	20	20
CDE	55	75	75	70	70
DDE	5	2	2	2	2
BDD	1	1	1	1	1
BSD	-10	32	32	32	32
ODD	10	10	10	10	10
SD	Starts a new defrost cycle at any time or stops a current defrost cycle.				
CFA	ON	OFF	OFF	ON	ON
CCR	20	20	20	20	20
CDL	220.1	220.1	220.1	220.1	220.1
DOA	ON	ON	ON	ON	ON
DAD	15	15	15	15	15
APD	2	2	2	2	2
ATD	10	10	10	10	10
AAS	OFF	OFF	OFF	OFF	OFF
CL	Set the hours and minutes in military time.				
DAY	Set the year, month, day of the month and day of the week.				
DS	ON	ON	ON	ON	ON
DL1	OFF	OFF	OFF	OFF	OFF
DL2	OFF	OFF	OFF	OFF	OFF
DL3	OFF	OFF	OFF	OFF	OFF
DL4	OFF	OFF	OFF	OFF	OFF
DCF	100	100	100	100	100
CON	19	19	19	19	19
COF	7	7	7	7	7
EL	Will display evaporator coil temp in real time every time an arrow is pressed.				
DL	Will display discharge line temp in real time every time an arrow is pressed.				
CB	Will display cabinet air temp in real time every time an arrow is pressed.				
PLn	Will display power line voltage in real time every time an arrow is pressed.				
RCO	Turns ON/OFF the compressor relay for 10-seconds or until an arrow is pressed.				
RdF	Turns ON/OFF the defrost relay for 10-seconds or until an arrow is pressed.				
RFA	Turns ON/OFF the blower relay for 10-seconds or until an arrow is pressed.				
RDH	Turns ON/OFF the door heater triac for 10-seconds or until an arrow is pressed.				
PRO	Set the controller in receiving mode for programming.				
CEP	Clear all controller memories and reloads the factory default parameters.				
REF	Firmware revision in the format X9.9 (X=version, 9=major revision, 9=minor revision).				

## VIII. CONTROL PARAMETERS

### VIII. f - UNDERCOUNTER PARAMETER SETTINGS (MIT II Control Version):

Control Parameter	UF1	UF2	UP1	UP2
ADR	2	2	2	2
BAU	9.6	9.6	9.6	9.6
NAF	ON	ON	ON	ON
SPH	0.1	38.1	38.1	38.1
SPL	-4	33.8	33.8	33.8
SHL	-0.31	36	36	36
SHH	0.1	40	40	40
SLL	-6.2	32	32	32
SLH	-4	34	34	34
RO	0	0	0	0
HI	5	41	41	41
LO	-10	30.2	30.2	30.2
SCL	F	F	F	F
HAD	15	15	15	15
LAD	2	2	2	2
AC	3	3	3	3
DEF	GAS	GAS	OFF	OFF
IBD	4.0	4.0	1.0	1.0
DDC	20	20	10	10
CDE	75	75	45.1	45.1
DDE	5	2	2	2
BDD	1	1	0	0
BSD	-10	32	32	32
ODD	10	10	10	10
SD	Starts a new defrost cycle at any time or stops a current defrost cycle.			
CFA	OFF	OFF	N/A	OFF
CCR	20	20	N/A	20
CDL	220.1	220.1	N/A	220.1
DOA	OFF	OFF	N/A	OFF
DAD	15	15	N/A	15
APD	2	2	2	2
ATD	10	10	N/A	10
AAS	OFF	OFF	N/A	OFF
CL	Set the hours and minutes in military time.			
DAY	Set the year, month, day of the month and day of the week.			
DS	ON	ON	ON	ON
DL1	OFF	OFF	OFF	OFF
DL2	OFF	OFF	OFF	OFF
DL3	OFF	OFF	OFF	OFF
DL4	OFF	OFF	OFF	OFF
DCF	100	100	100	100
CON	19	19	11	11
COF	7	7	10	10
EL	Will display evaporator coil temp in real time every time an arrow is pressed.			
DL	Will display discharge line temp in real time every time an arrow is pressed.			
CB	Will display cabinet air temp in real time every time an arrow is pressed.			
PLn	Will display power line voltage in real time every time an arrow is pressed.			
RCO	Turns ON/OFF the compressor relay for 10-seconds or until an arrow is pressed.			
RdF	Turns ON/OFF the defrost relay for 10-seconds or until an arrow is pressed.			
RFA	Turns ON/OFF the blower relay for 10-seconds or until an arrow is pressed.			
RDH	Turns ON/OFF the door heater triac for 10-seconds or until an arrow is pressed.			
PRO	Set the controller in receiving mode for programming.			
CEP	Clear all controller memories and reloads the factory default parameters.			
REF	Firmware revision in the format X9.9 (X=version, 9=major revision, 9=minor revision).			

**HOURS OF OPERATION:**

Monday thru Friday 7:30 am - 4:30 pm CST



Quality Refrigeration

**Traulsen**

4401 Blue Mound Road Fort Worth, TX 76106  
Phone: (800) 825-8220 Fax-Svce: (817) 740-6757  
Website: [www.traulsen.com](http://www.traulsen.com)

## TRAULSEN TECHNICAL BULLETIN

PRODUCT SERVICE DEPARTMENT

TROY, OH. 45374-0001

### TRAULSEN 2010 DOE COMPLIANT INTELA - TRAU CONTROL REVISION C32 OR GREATER

#### Introduction

To comply with 2010 Department of Energy requirements on Traulsen refrigerator / freezer equipment manufactured after January 1, 2010, changes were made to the control for all R, A, & G series refrigerator / freezer models. The changes have been made to the defrost, fan cycling, door frame heater, and set point adjustment outlined under this TTB.

Traulsen has taken precaution during this designing process to ensure that product longevity and temperature performance stay consistent with prior designs. These are mainstays of Traulsen's product & philosophy and have not been negatively affected as we strive for energy efficient products and operation. For questions regarding these changes please contact Traulsen at 1-800-825-8220 option 3.

#### Identifying 2010 DOE Compliant Control

##### Control Version Method

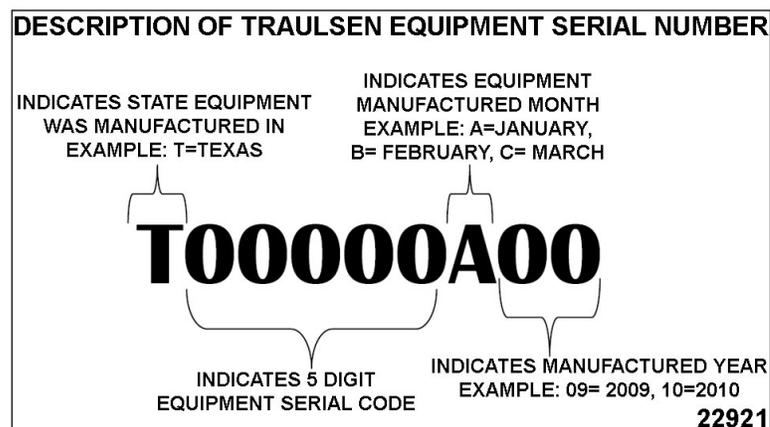
1. Turn control power on by cycling the cabinet On/Off power switch.
2. Verify control display revision number (C ##) during power up.

**NOTE:** If control revision is C32 or greater, the control is DOE compliant and will function as outlined in this TTB.

##### Serial Number Method

1. Access equipment data plate.
2. Verify the equipment manufacturing date from the equipment serial number. Refer to following diagram on how to verify the equipment manufactured date.

**NOTE:** If serial number manufacturing date is January 2010 or later, the control is DOE compliant and will function as outlined in this TTB.



#### Refrigerator Function with DOE Compliant Control

Refrigerators with Intela-Traul control with revision C32 or greater will have an electric defrost cycle that occurs every 8 hrs. for 25 minutes. The evaporator fans will cycle Off with cabinet door openings; The evaporator fan(s) will cycle On & Off during a compressor Off cycle. Evaporator fans will remain On during a compressor On cycle

unless the door is opened. Door frame heaters will cycle On an Off with the compressor.

DEFROST FUNCTION REFRIGERATOR		
Parameter	Value	Description
Def	ELE	Defrost type: Electric
lbd	8	Defrost intervals: 8hrs.
ddc	25	Defrost length: 25mins.
Cde	45	Defrost termination temperature 45°F.

REFRIGERATOR FUNCTION				
	Evaporator Fans		Door Frame Heaters	
	On	Off	On	Off
Compressor On	100%	0%	100%	0%
Compressor Off	Fan(s) cycle (On/Off)	Fan(s) cycle (On/Off)	0%	100%
Door Open	0%	100%	N/A	N/A
Door Closed	Compressor cycle state (On/Off)		N/A	N/A

**Freezer Function with DOE Compliant Control**

Freezer with Intela-Traul control with revision C32 or greater will have an electric defrost cycle that occurs every 4 hrs. for 30 minutes. The evaporator fans will cycle Off with cabinet door openings. The evaporator fan(s) will cycle On & Off during a compressor Off cycle. Evaporator fans will remain On during a compressor On cycle unless the door is opened. Door frame heaters will cycle On and Off with the compressor.

DEFROST FUNCTION FREEZER		
Parameter	Value	Description
Def	ELE	Defrost type: Electric
lbd	4	Defrost intervals: 4hrs.
ddc	30	Defrost length: 30mins.
Cde	45	Defrost termination temperature 45°F.

FREEZER FUNCTION				
	Evaporator Fans		Door Frame Heaters	
	On	Off	On	Off
Compressor On	100%	0%	100%	0%
Compressor Off	Fan(s) cycle (On/Off)	Fan(s) cycle (On/Off)	0%	100%
Door Open	0%	100%	N/A	N/A
Door Closed	Compressor cycle state (On/Off)		N/A	N/A

## Set Point Adjustments

Previous versions of the Intela-Traul control (before revision C32) used SPH (Set Point High) and SPL (Set Point Low) for set point adjustments. The DOE compliant Intela-Traul control (revision C32 or later) uses SP (Set Point) and SPd (Set Point Differential) for adjustment of the set point. SPd default setting is 2. SP default setting is (35 for refrigerators) (-3 for freezers) which cycles the thermostat at a cabinet temperature of (37°F On and 35°F Off for refrigerators) (-1°F On and -3°F Off for freezers).

The following are the parameters that will appear in the customer menu control display with a DOE compliant Intela-Traul control with software revision C32 or greater.

	Thermostat Set Point		Defrost Lockout 1
	Thermostat Set Point Differential		Defrost Lockout 2
	Room Temperature Offset		Defrost Lockout 3
	Temperature Scale		Defrost Lockout 4
	Start Manual Defrost		Cabinet Air Temperature
	Audible Alarm Style *		Evaporator Coil Sensor Temperature
	Time (24-hour clock)		Liquid Line Sensor Temperature *
	Date (month - day - year)		Cabinet Serial Number
	Daylight Savings		

\* Not used with G Control

22922

## TRAULSEN TECHNICAL BULLETIN

PRODUCT SERVICE DEPARTMENT

TROY, OH. 45374-0001

### THERMAL EXPANSION VALVE CHANGE TO INTERNAL EQUALIZER

#### Introduction

Thermal expansion valves used on all R404a refrigeration systems were externally equalized type. New builds and service parts are now internal equalizer type TXV.

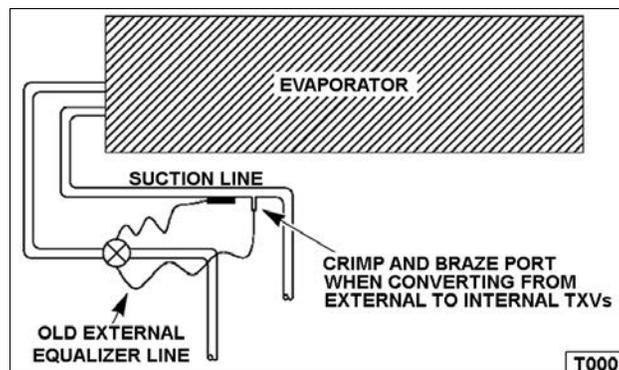
#### Service Parts

If you order any of the external equalized valves, the appropriate internal equalized valve will be sent.

External Equalizer	Description	Internal Equalizer	Description
325-60080-15	TXV, FBSE 1/4 ZP	325-60080-26	TXV, AA 1/4 SW35
325-60080-16	TXV, FBSE 1/8 ZP	325-60080-25	TXV, AA 1/8 SW35
325-60080-20	TXV, AAE 1/8 SW30	325-60080-25	TXV, AA 1/8 SW35
325-60080-21	TXV, AAE 1/4 SW30	325-60080-26	TXV, AA 1/4 SW35
325-60080-22	TXV, AAE 1/4 SW50	325-60080-36	TXV, AA 1/4 SW50
325-60080-23	TXV, AAE 1/2 SW50	325-60080-34	TXV, AA 1/2 SW50

#### Procedure

1. Recover refrigerant or pump system down.
2. Remove thermal expansion valve and external equalizer line from system.
3. Install replacement TXV in high pressure line.
4. Crimp the external equalization port closed and braze shut.
5. Place the refrigeration system back into operation using approved refrigeration system service procedures.



## TRAULSEN TECHNICAL BULLETIN

PRODUCT SERVICE DEPARTMENT

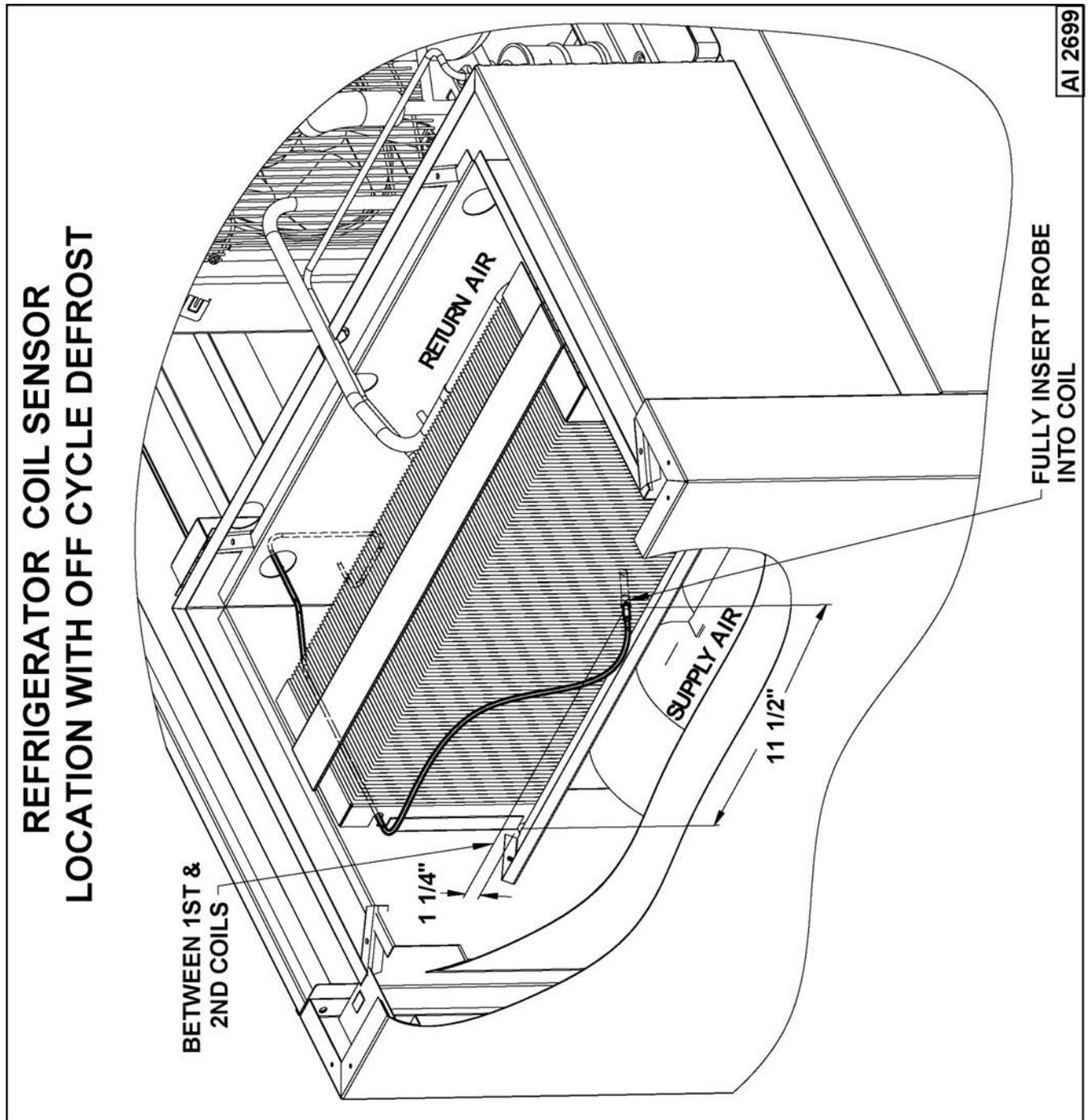
TROY, OH. 45374-0001

### TRAULSEN EQUIPMENT TEMPERATURE SENSOR LOCATIONS

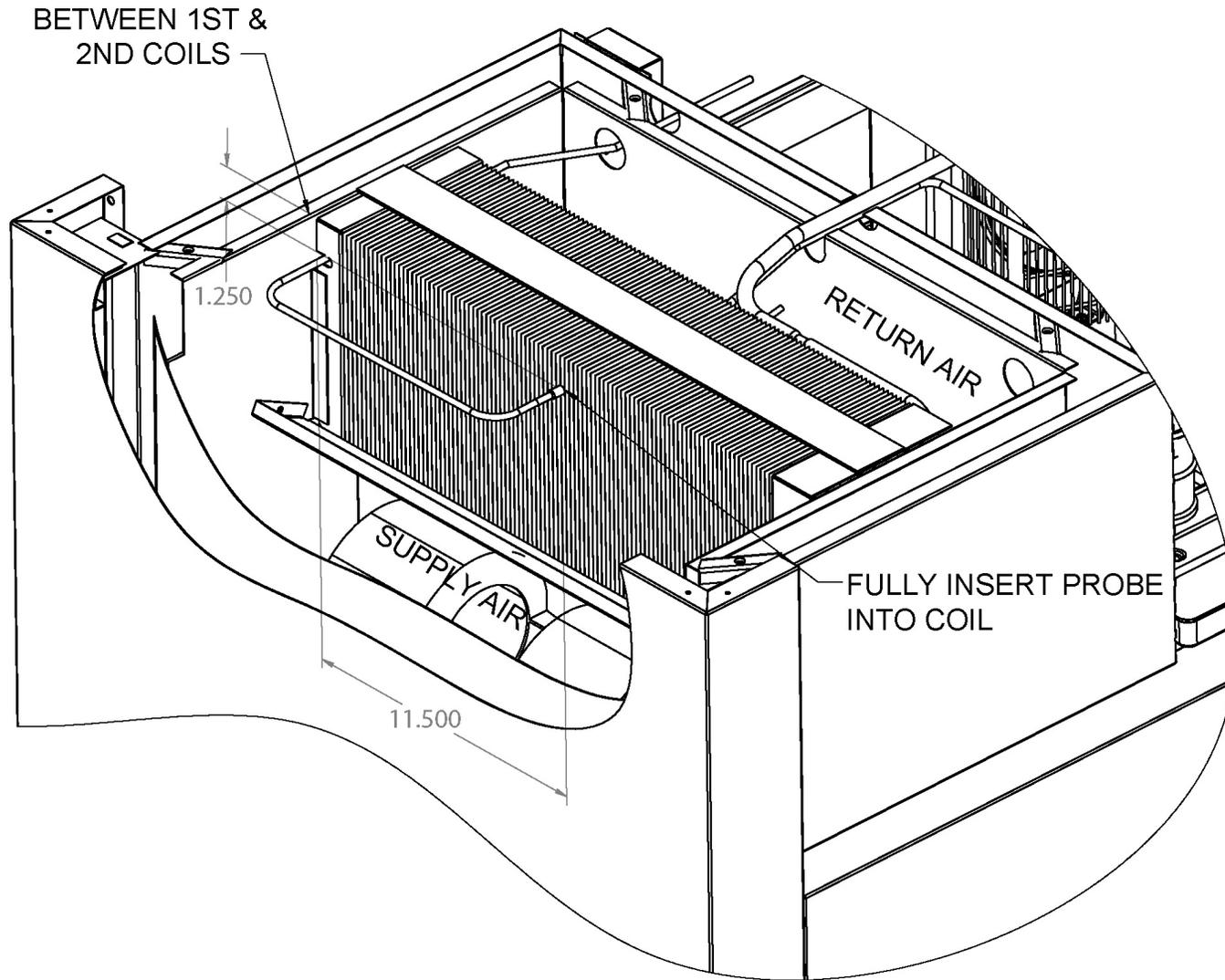
#### Introduction

To inform the field of proper sensor locations on Traulsen refrigeration systems.

#### Service Information

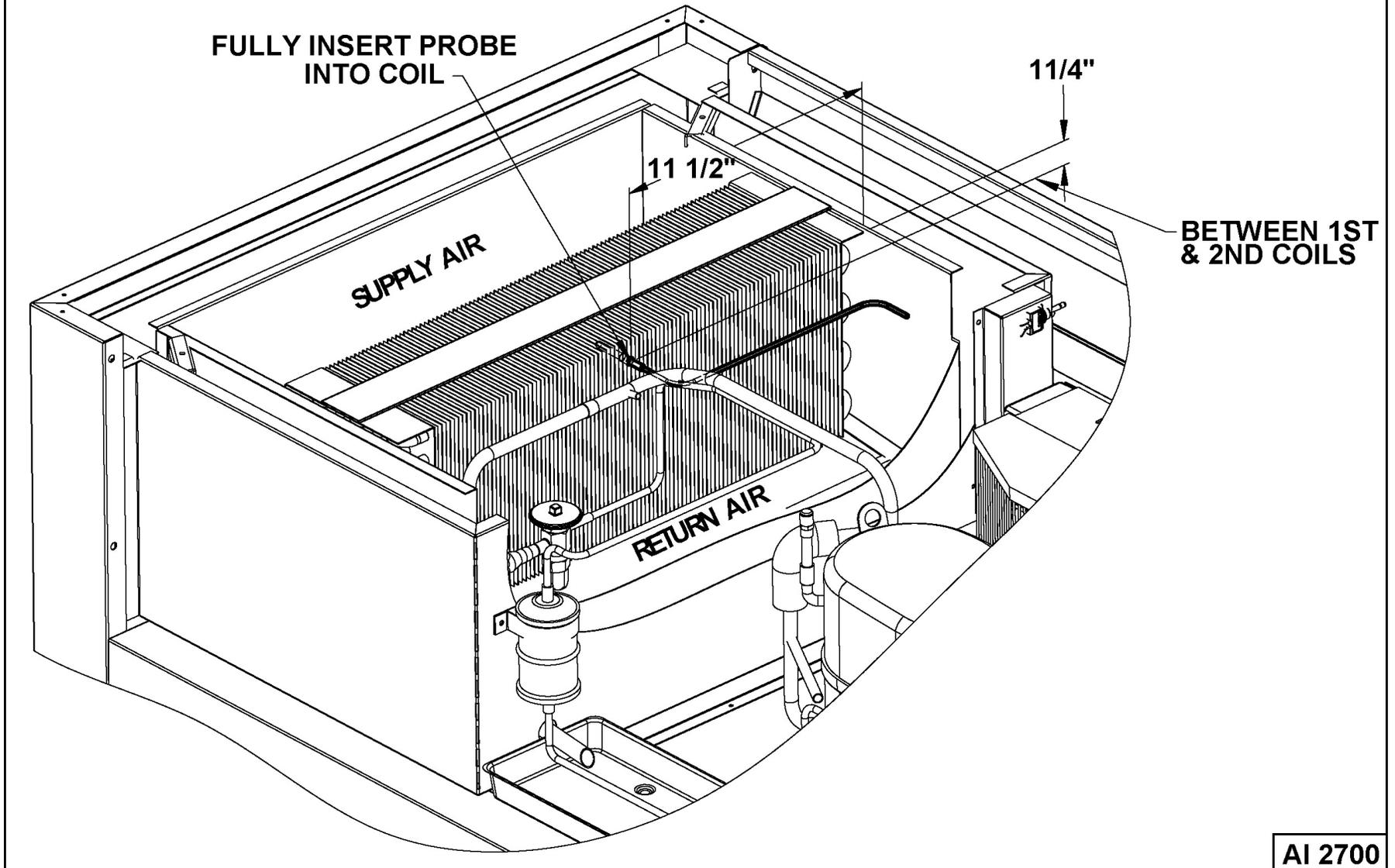


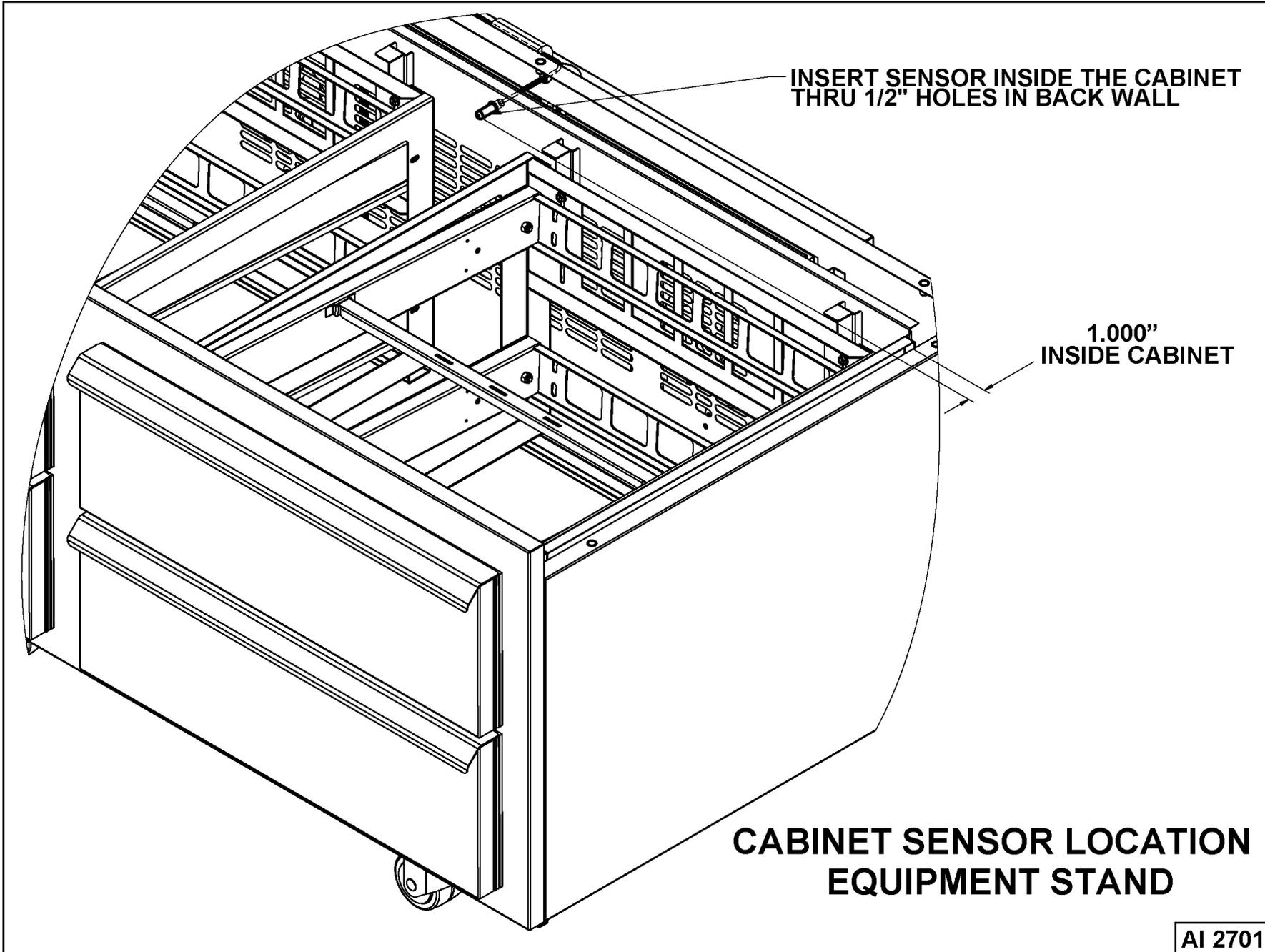
# REFRIGERATOR COIL SENSOR LOCATION WITH ELECTRIC DEFROST

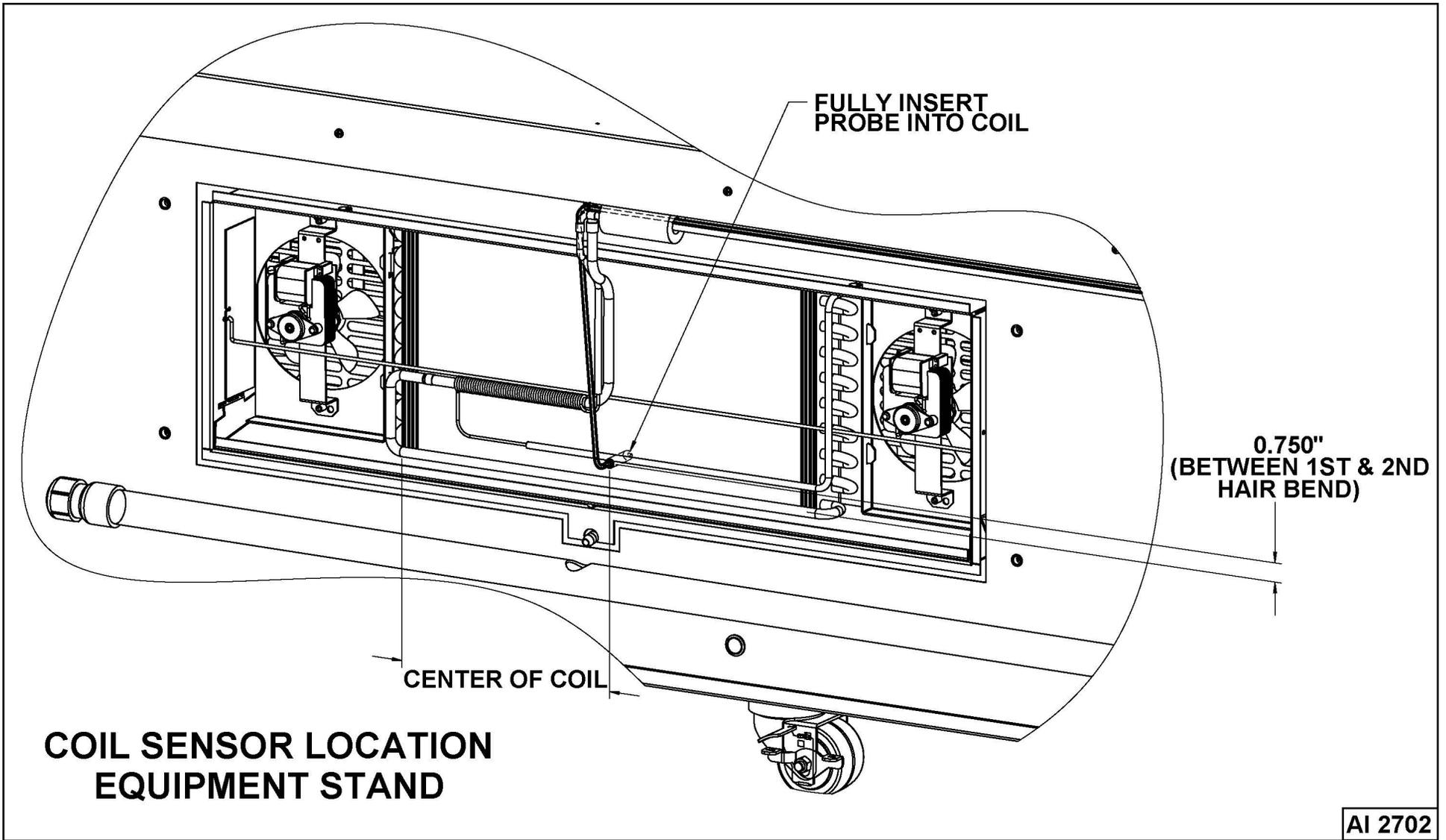


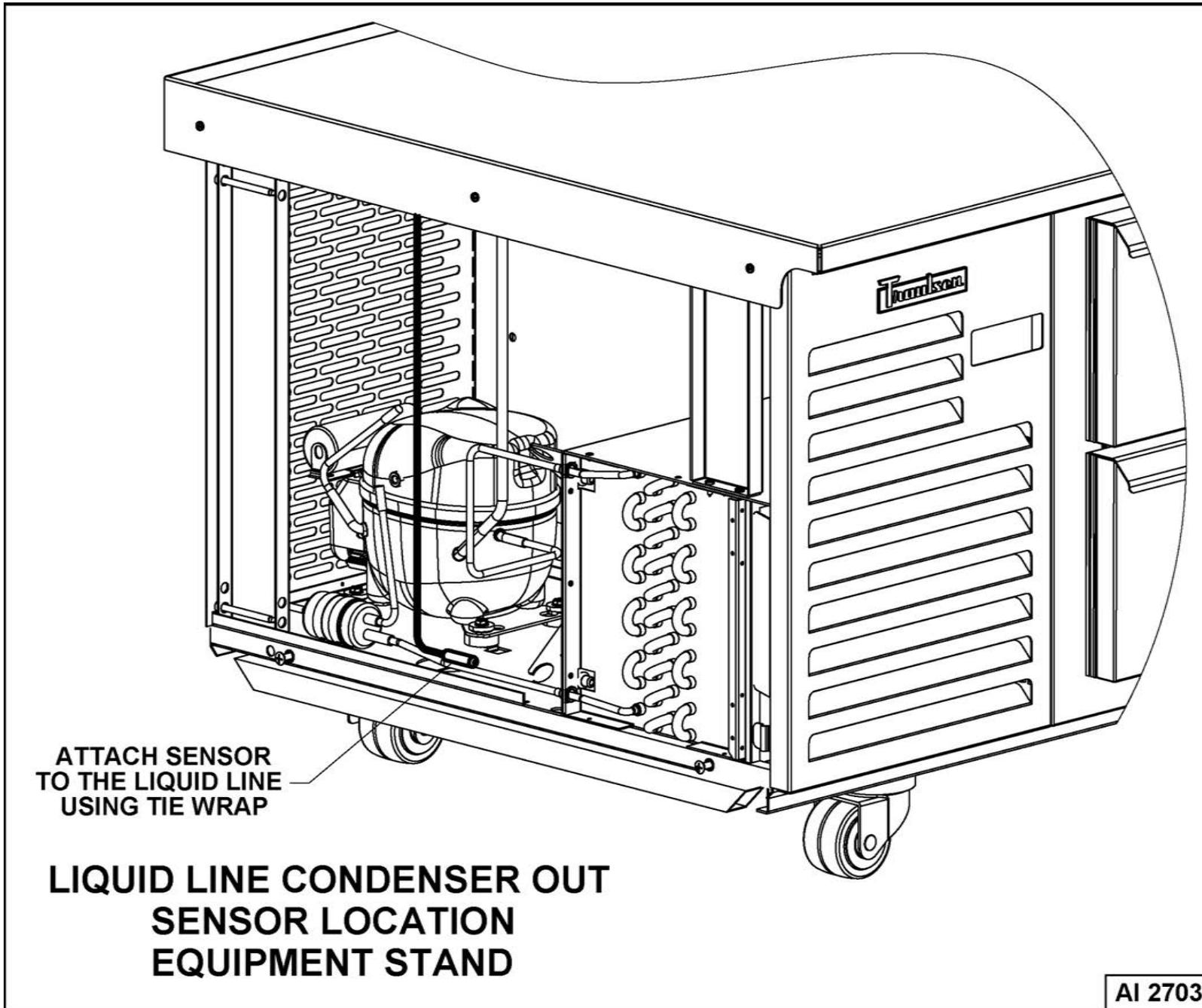
AI 2714

# FREEZER COIL SENSOR LOCATION









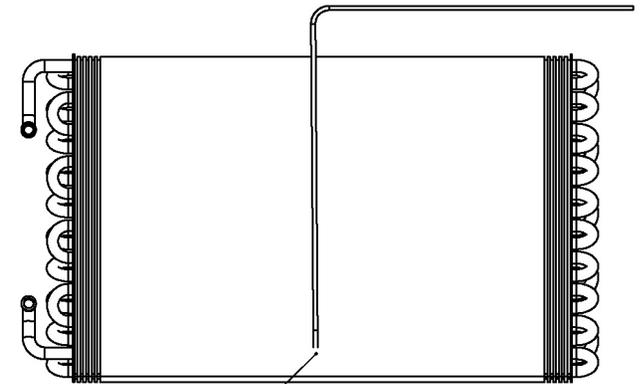
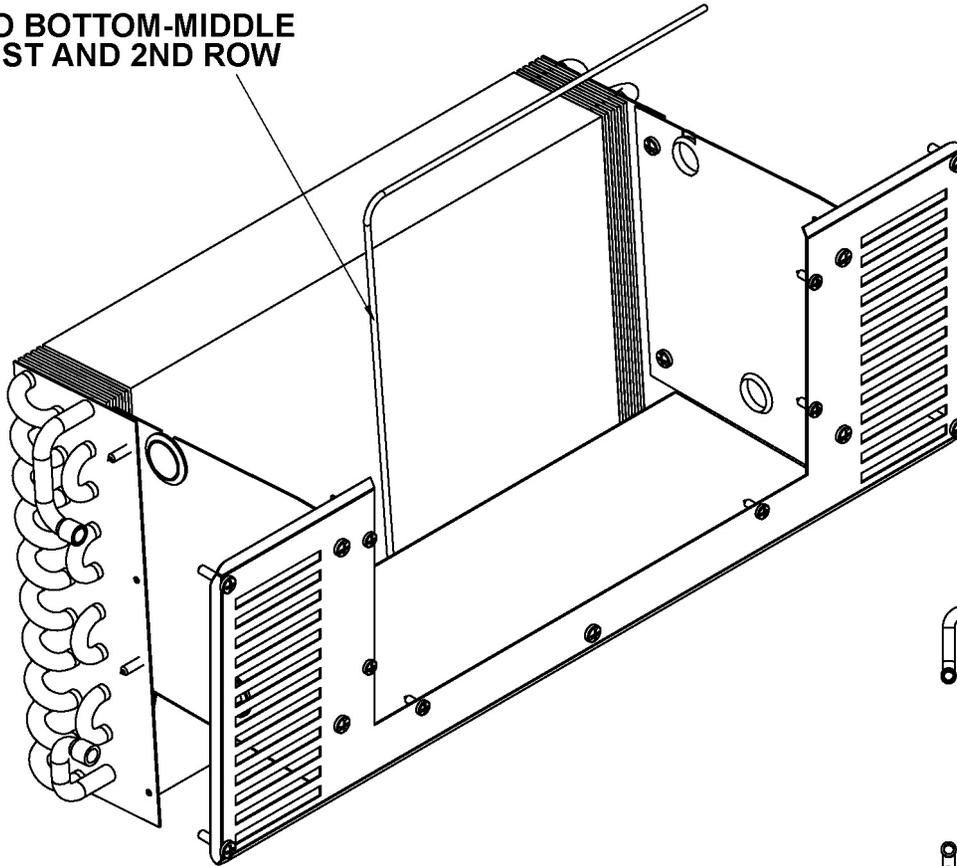
ATTACH SENSOR  
TO THE LIQUID LINE  
USING TIE WRAP

LIQUID LINE CONDENSER OUT  
SENSOR LOCATION  
EQUIPMENT STAND

AI 2703

## SENSOR PLACEMENT, COIL, FULL SIZE UNDERCOUNTERS

INSERT SENSOR INTO BOTTOM-MIDDLE  
OF COIL, BETWEEN 1ST AND 2ND ROW

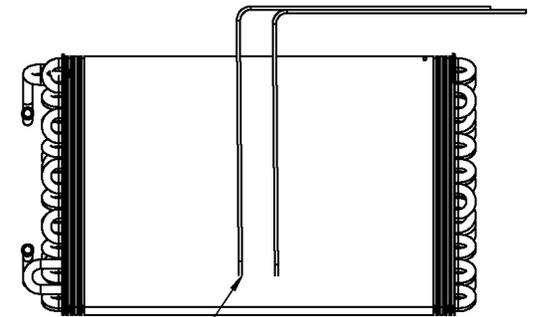
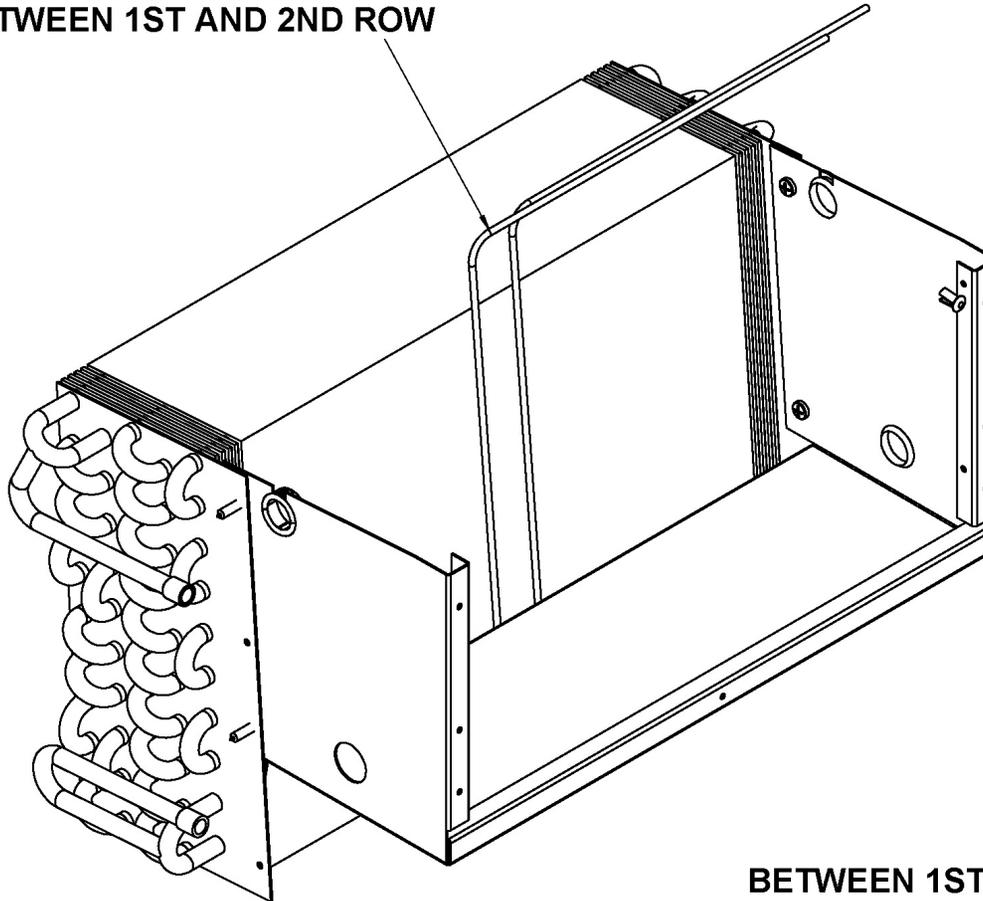


BETWEEN 1ST AND 2ND ROW

AI 2704

## SENSOR PLACEMENT, COIL, RBC50

INSERT SENSORS INTO BOTTOM-MIDDLE  
OF COIL, BETWEEN 1ST AND 2ND ROW

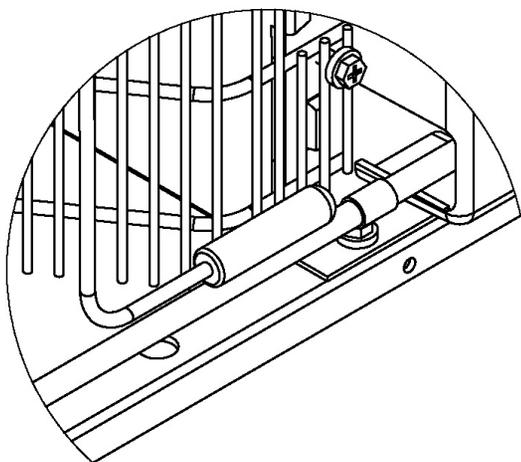


BETWEEN 1ST AND 2ND ROW

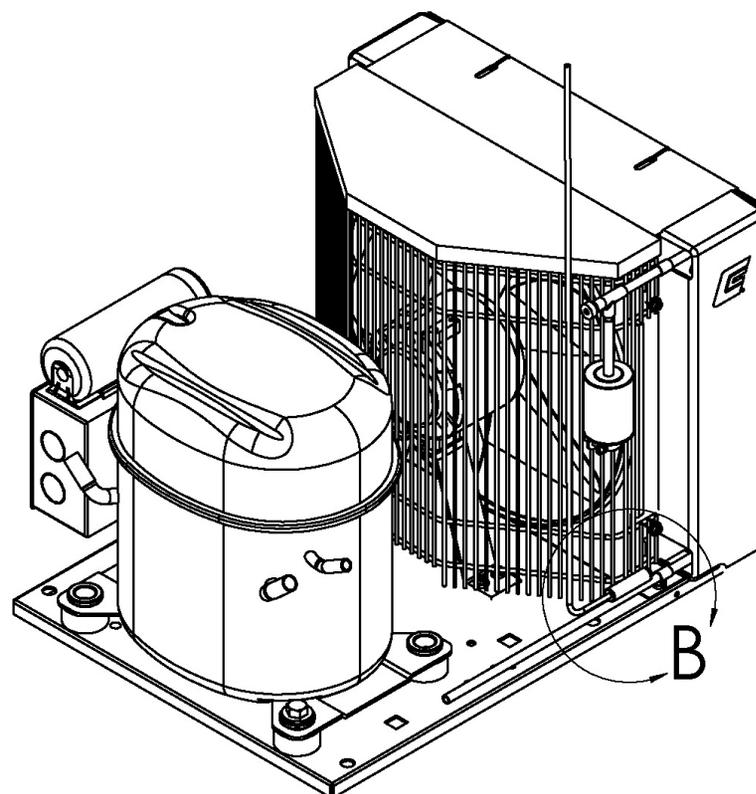
AI 2705

# SENSOR PLACEMENT, LIQUID LINE SENSOR, ALL UPRIGHT CABINETS WITH COPELAND CONDENSING SYSTEMS

**INSTRUCTIONS: PLACEMENT OF P/N 337-60072-TAB (337-60407-TAB) IS CRITICAL. PLACE ON COPPER TUBING EXITING THE CONDENSER, CLOSE TO THE DRIER. HOLD IN PLACE WITH METAL TAPE, INSULATE WITH GREY FOAM TAPE, AND USE SCREW-ON CLAMP.**



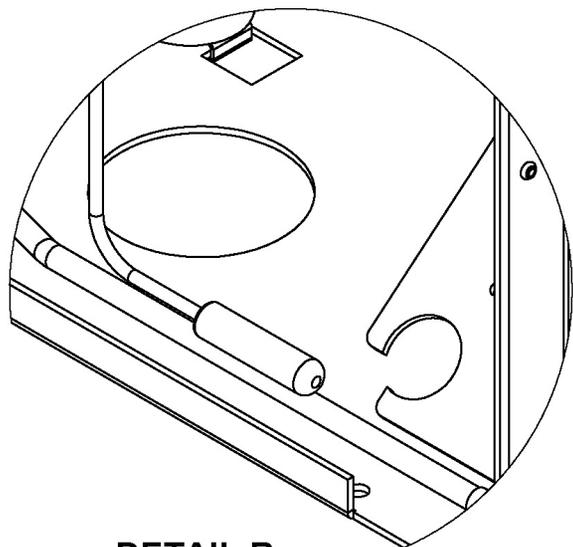
**DETAIL B  
SCALE 1 : 2  
NOTE TAPE AND CLAMP  
NOT SHOWN**



**AI 2706**

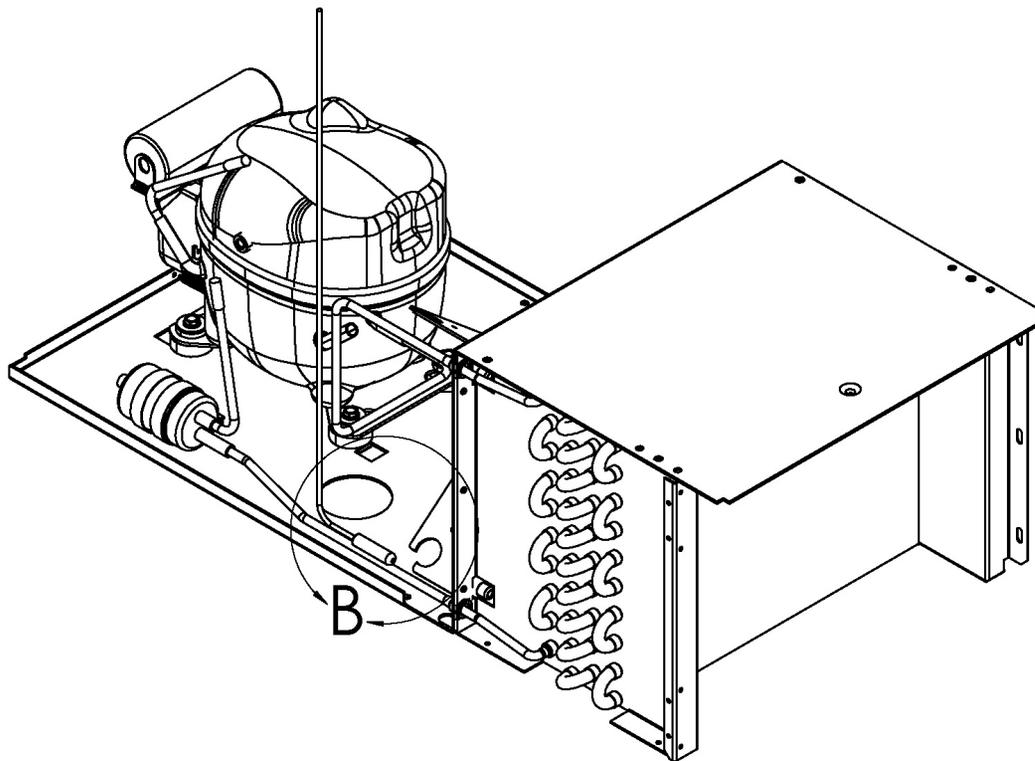
## SENSOR PLACEMENT, LIQUID LINE SENSOR, ALL FULL SIZE UNDERCOUNTERS

**INSTRUCTIONS:** PLACEMENT OF P/N 337-60072-TAB (337-60407-TAB) IS CRITICAL. PLACE ON COPPER TUBING EXITING THE CONDENSER, CLOSE TO THE DRIER. HOLD IN PLACE WITH METAL TAPE, INSULATE WITH GREY FOAM TAPE, AND USE SCREW-ON CLAMP.



**DETAIL B  
SCALE 1 : 2**

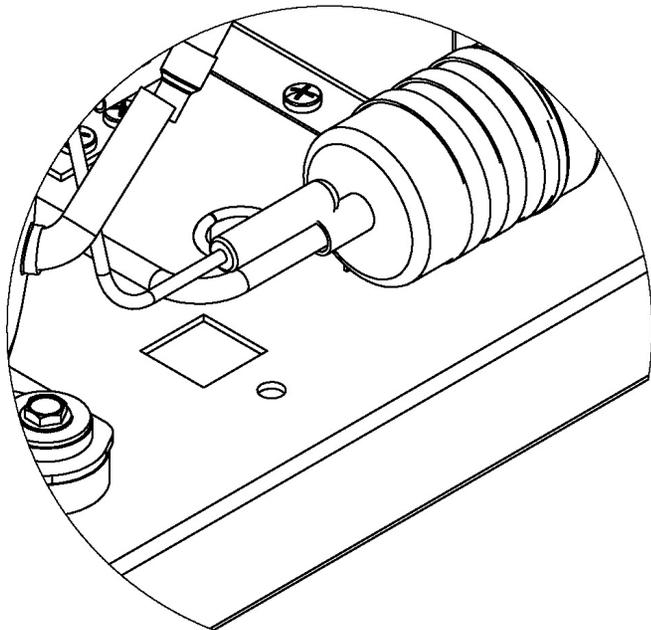
**NOTE: TAPE AND CLAMP NOT SHOWN**



**AI 2707**

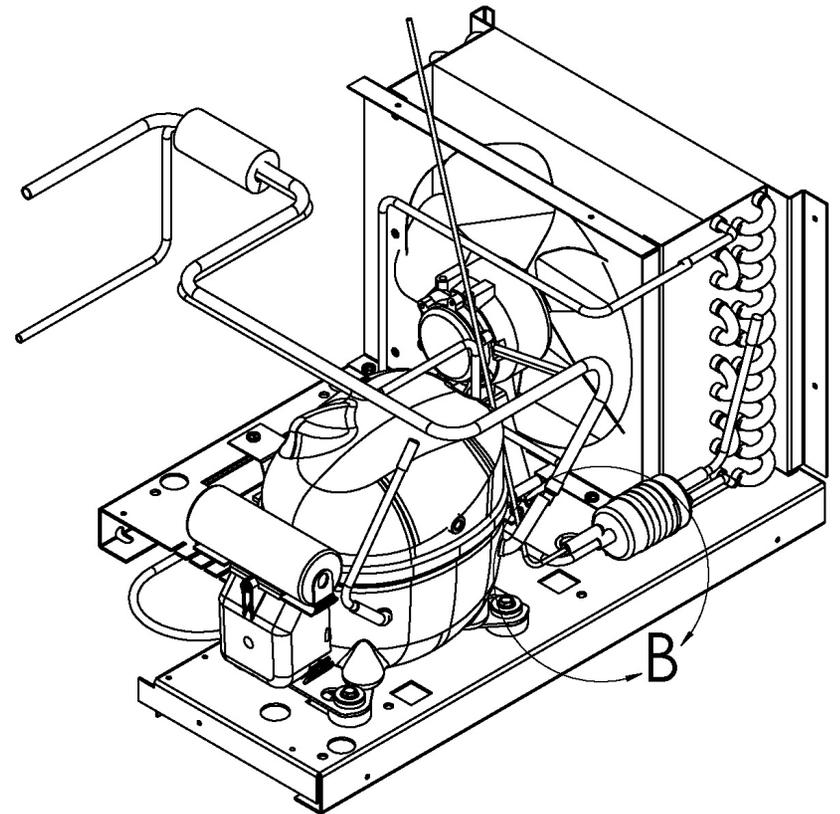
# SENSOR PLACEMENT, LIQUID LINE SENSOR, ALL UPRIGHT CABINETS WITH TRAUlsen CONDENSING SYSTEMS

INSTRUCTIONS: PLACEMENT OF P/N 337-60072-TAB (337-60407-TAB) IS CRITICAL. PLACE ON COPPER TUBING EXITING THE CONDENSER, CLOSE TO THE DRIER. HOLD IN PLACE WITH METAL TAPE, INSULATE WITH GREY FOAM TAPE, AND USE SCREW-ON CLAMP.



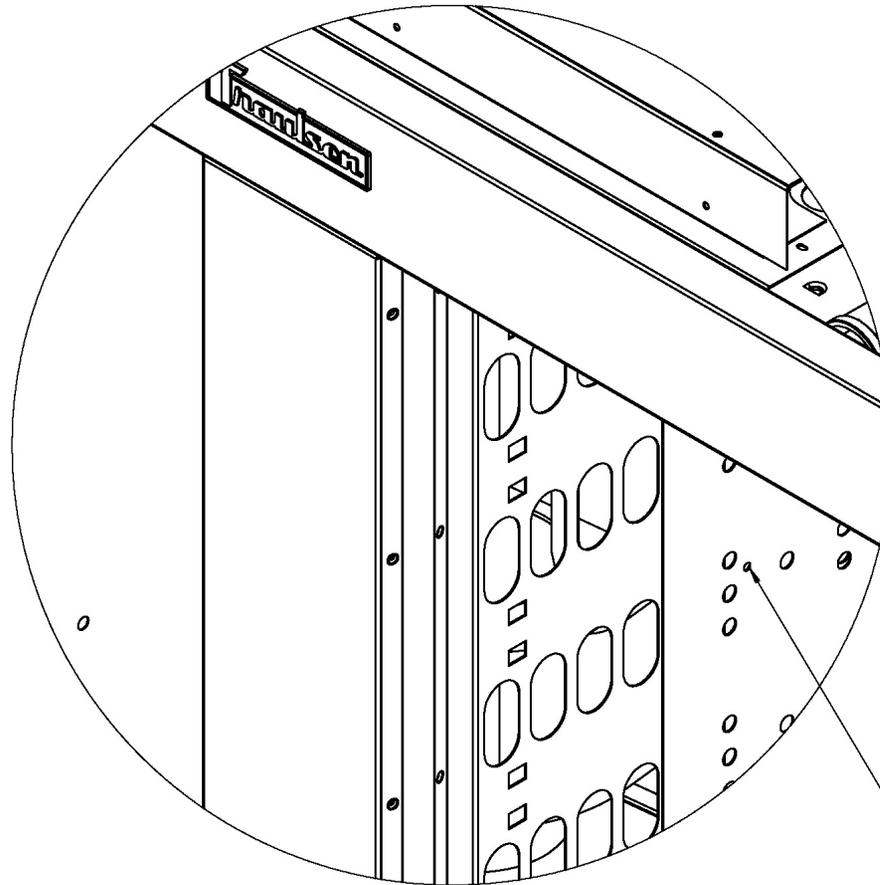
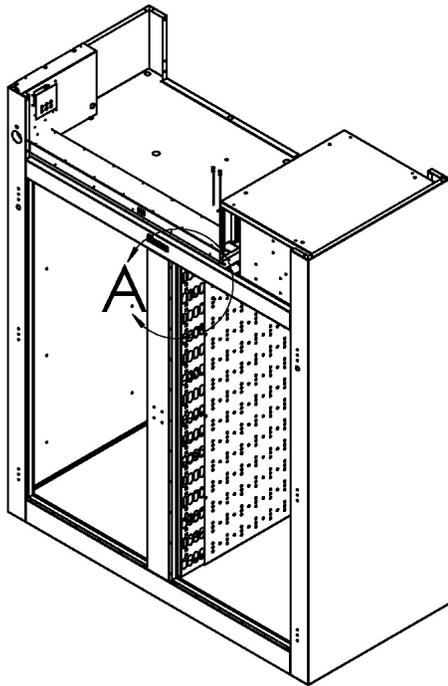
DETAIL B  
SCALE 1 : 2

NOTE: TAPE AND CLAMP NOT SHOWN



AI 2708

# CABINET SENSOR LOCATION, EVENTHAW



SENSOR LOCATION  
HOLE  
(PRE PUNCHED)

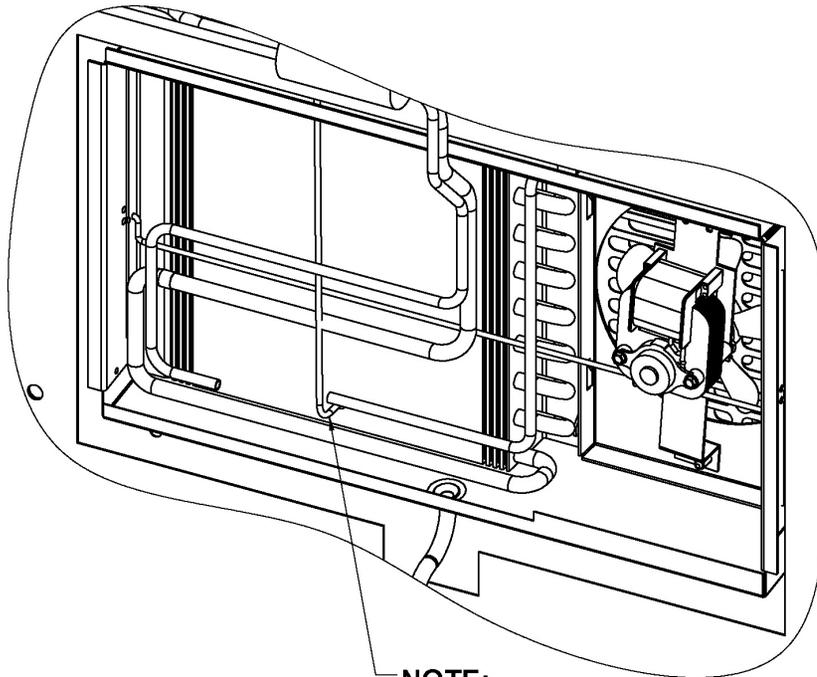
**NOTE: MOUNT SENSOR INSIDE RIGHT HAND SIDE AIR CHAMBER.  
SENSOR WILL BE IN PATH OF BLOWER OUTLET AIR.  
SENSOR MOUNTED POINTING DOWN.**

DETAIL A  
SCALE 1 : 4

AI 2709

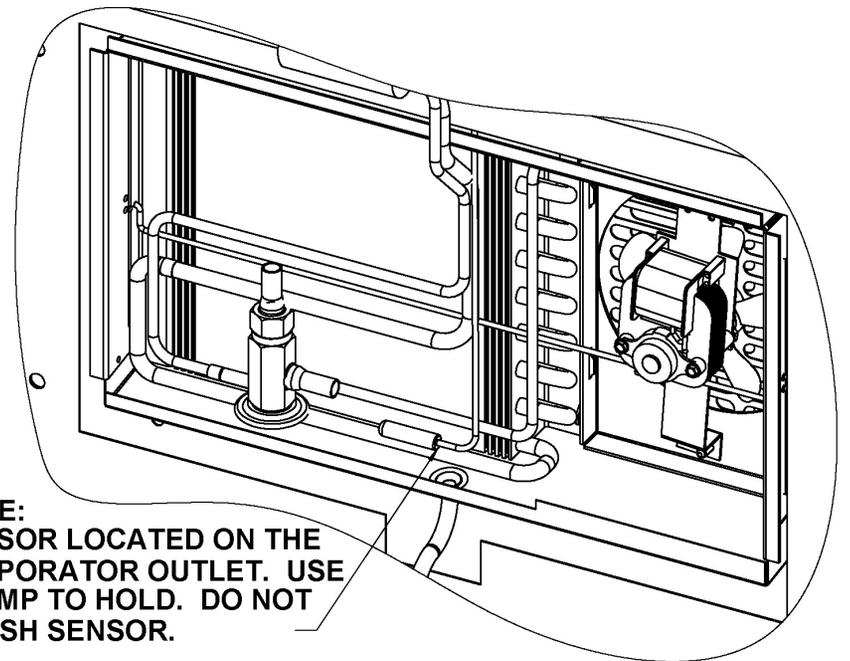
## COIL SENSOR LOCATION, 1 SECTION DUAL TEMP

### REFRIGERATOR COIL SENSOR LOCATION



**NOTE:**  
SENSOR LOCATED IN THE MIDDLE  
OF THE EVAPORATOR COIL,  
BETWEEN 1ST AND 2ND PASS.

### FREEZER COIL SENSOR LOCATION



**NOTE:**  
SENSOR LOCATED ON THE  
EVAPORATOR OUTLET. USE  
CLAMP TO HOLD. DO NOT  
CRUSH SENSOR.

AI 2710

# TRAULSEN TECHNICAL BULLETIN

PRODUCT SERVICE DEPARTMENT

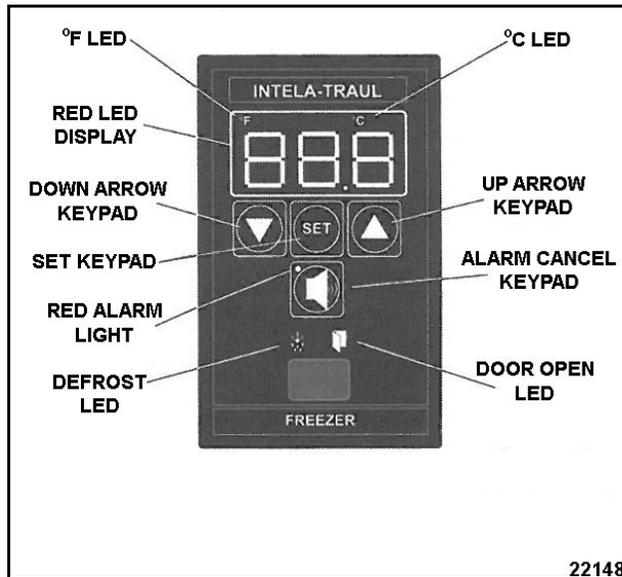
TROY, OH. 45374-0001

## TRAULSEN INTELA-TRAUL REFRIGERATOR & FREEZER CONTROLS CABINET TEMPERATURE SET POINT CHANGE

### Introduction

To inform the field of instructions to change cabinet temperature set point on Traulsen Intela-Traul refrigerator & freezer controls (control software revision code C32 & above) manufactured after January 4<sup>th</sup> 2010.

### Enter Customer Access Mode



**NOTE:** If 30 seconds elapse between keypad presses, the controller will revert to a cabinet temperature display (normal operation). If the wrong security code is entered, the controller will revert to a cabinet temperature display (normal operation). To save settings & exit customer access mode, press the alarm cancel keypad or not pressing any keypads for 30 seconds.

1. Use security code 0A1 by.

0A1

2. Pressing the Set keypad until CUS is displayed.

CUS

3. Press the Set keypad until left zero is flashing with three zeros displayed.

000

4. Press the Set keypad until center zero is flashing with three zeros displayed.

000

5. Press the Down Arrow until A is shown in center display.

0A0

6. Press Set keypad until right zero is flashing with 0A0 displayed.

0A0

7. Press the Up Arrow until 1 is flashing in right display.

0A1

8. Press the Set keypad. Display should read SP (Thermostat Set Point) indicating controller is in Customer Access Mode.

SP

### Change Cabinet Temperature Set Point

1. Press the Up or Down Arrows until SP is shown in the display.

SP

2. Press Set keypad to change set point cutout cabinet temperature value.
3. Press the Up or Down Arrows until the desired cabinet set point is displayed (Example -10°F). This will be the current cabinet temperature set point at cutout.

- 10

4. Press the Set keypad to save the change.
5. Allow controller to return to the cabinet temperature display (normal operation).
6. Check for proper operation.

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